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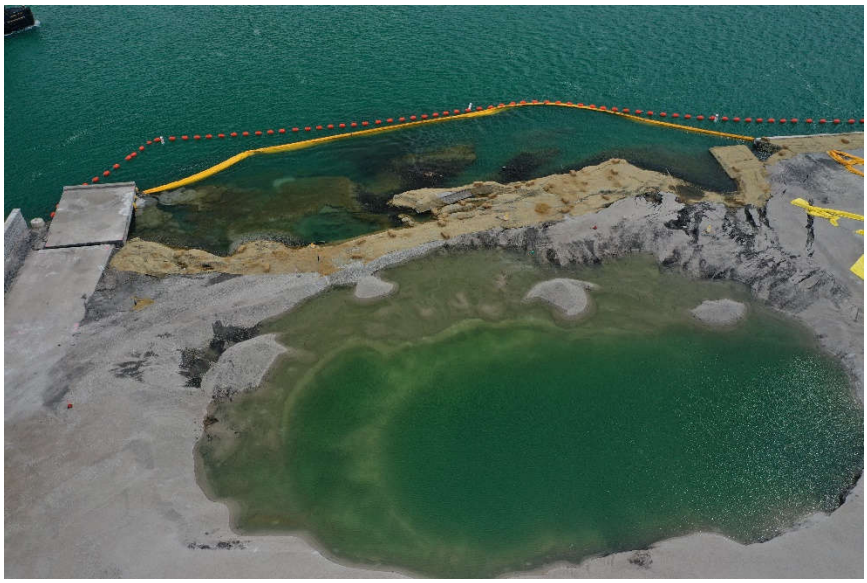

ENVIRONMENTAL SERVICES

BUILDING ARCHITECTURE, ENGINEERING & SCIENCE

INDUSTRIAL HYGIENE SERVICES

BROWNFIELDS & ECONOMIC INCENTIVES CONSULTING

RIVER BANK RESTORATION PLAN

5851 West Jefferson Avenue | Detroit, Michigan
PM Project Number 01-5303-3-0001

Prepared for:

Revere Dock, LLC
2217 Lake Avenue North
Muskegon, Michigan 49445

Prepared by:

PM Environmental, Inc.
4080 West Eleven Mile Road
Berkley, Michigan 48072

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Michigan Locations
Berkley **Bay City**
Grand Rapids **Detroit**
Chesterfield **Lansing**

March 30, 2020

Mr. Paul Owens
Michigan Department of Environment, Great Lakes, and Energy (EGLE)
Warren District Office
27700 Donald Court
Warren, Michigan 48092

RE: River Bank Restoration Plan
5851 West Jefferson Avenue, Detroit Michigan
Former Revere Copper and Brass
EGLE Site ID No. 82000136
PM Environmental Project No. 01-5303-3-0003

Dear Mr. Owens

Enclosed is a copy of an River Bank Restoration Plan submitted on behalf of Revere Dock, LLC in response to a failure of the bank of the Detroit River at the above-referenced subject property.

This report outlines actions to be conducted to remove materials deposited in the Detroit River as a result of the fiver bank failure that occurred at the subject property in November 2019 and restore the river bank with a new sea wall.

If you have any questions regarding the information in this report, please contact us at 800-313-2966.

Sincerely,

PM Environmental, Inc.

J. Adam Patton, CHMM
Vice President

Enclosure

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March 30, 2020

Mr. Steve Erickson
Revere Dock, LLC
2217 Lake Avenue North
Muskegon, Michigan 49445

RE: River Bank Restoration Plan
5851 West Jefferson Avenue, Detroit Michigan
Former Revere Copper and Brass
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THIS REPORT WAS COMPLETED FOR REVERE DOCK, LLC, WHO MAY RELY ON THE REPORT'S CONTENTS.

If you have any questions regarding the information in this report, please contact us at 800-313-2966.

Sincerely,

PM Environmental, Inc.

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1.0 INTRODUCTION AND PURPOSE

On behalf of Revere Dock, LLC, PM Environmental, Inc. (PM) completed this River Bank Restoration Plan for the property located at 5851 West Jefferson Avenue in Detroit, Wayne County, Michigan (Figures 1 and 2), formerly known as the Revere Copper and Brass site.

This plan outlines actions to be conducted to remove materials deposited in the Detroit River as a result of the fiver bank failure that occurred at the subject property in November 2019 and restore the river bank with a new sea wall.

1.1 Subject Property Description and Background

The subject property is located on the south side of West Jefferson Avenue between South Cavalry Street and Junction Street, and fronts the Detroit River (Figure 1).

Subject Property Description

Consistent with a Nonresidential property use as defined under Michigan Part 201, the subject property is used as a storage yard operated by Detroit Bulk Storage for aggregate materials and is surrounded by a concrete security wall that is present along the north, east, and west property boundaries, with a security gate and staffed security office located adjacent to the northern property boundary, which prevents public access to the subject property (Figure 2). The Detroit River boarders the subject property to the south.

Surface cover at the subject property consists of concrete driveway/approach/walkway areas to the north, an asphalt parking area to the west and areas of seeded topsoil and landscaping along the northern property boundary.

As outlined in the January 24, 2020 Interim Response Plan prepared for the subject property by PM and the February 7, 2020 Response to January 31, 2020 Compliance Communication, direct contact and erosion controls exist in the bank failure area and have been implemented as follows (refer to the attached Figure 2):

- **Gravel/Concrete Surface Cover:** The majority of the area of the bank failure is equipped with a gravel cover (limited areas of concrete surfacing are also present) that provides a barrier to dermal contact with contaminated soils.

- **Security Fencing:** A 6-foot tall chain link fence was constructed across the entire north/south width of the subject property on January 31, 2020, which is equipped with a locked security gate. This fence prevents access to the bank failure area by unauthorized persons. This fencing is inspected on a weekly basis with records maintained by Revere Dock.

- **Gravel Erosion Control Berm:** A gravel control berm was installed along the northeast boundary of the pond in January 2020 within the bank failure area to provide erosion control and filtration of potential runoff in the pond area. The gravel erosion control berm is inspected on a daily basis with, maintenance completed as needed, and records of inspection and maintenance activities maintained by Revere Dock.

- **Erosion Control Blankets:** As an additional control, Revere Dock installed erosion control blanketing along the boundary of the bank failure area on February 8, 2020. The erosion control blankets are inspected on a daily basis with, maintenance completed as needed, and records of inspection and maintenance activities maintained by Revere Dock.

- **Cable Buoys:** Cable buoys were installed in the river across the entire length of the subject property as depicted on Figure 2 to further restrict access via the river. Installation of the buoys was completed on February 8, 2020.

  The cable buoys are inspected on a weekly basis, with records maintained by Revere Dock.

- **5-foot Turbidity Curtains:** Turbidity control curtains (five-foot curtain depth) with linked surface flotation elements/buoys are present in the water immediately adjacent to the bank failure area, which are anchored to the river bottom in accordance with manufacturer recommendations. The depth of the curtains approximates the bottom depth of the area where they are installed such that they serve to contain potential erosion/turbidity sourced from the site.

  The turbidity curtains are inspected on a daily basis with records maintained by Revere Dock.

Background

Standard and other historical records document that the subject property was initially developed prior to 1908 with several commercial and industrial buildings. Specifically, the property was developed with an automotive machine shop in the northern portion, and the southern and western portions were developed by Michigan Copper and Brass, later known as Revere Copper and Brass. The northern portion was historically separate from the Revere Copper and Brass operations and was occupied by rubber manufacturers, automotive machining/manufacturing, tool and die factories, glass factories, and automotive collision repair shops. Historical operations associated with Revere Copper and Brass consisted of rolling, annealing, pickling, drawing, shearing, extrusion, and finishing of copper and brass. Revere Copper and Brass vacated the property in 1985 and the property tax reverted to the City of Detroit in November 1986. All of the former buildings associated with the property were demolished between 1985 and 1995.

The subject property was purchased by Revere Dock, LLC in 2015, with its current use being as a storage yard for aggregate materials, operated by Detroit Bulk Storage, as indicated above.

Part 201 Facility Status

Subsurface investigations have been conducted at the subject property dating back to the 1990s, summaries of which remain on file with the Michigan Department of Environment, Great Lakes, and Energy (EGLE), including the July 14, 2015 Baseline Environmental Assessment (BEA) prepared for Revere Dock, LLC. Those investigations document the presence of various volatile organic compounds (VOCs), polynuclear aromatic compounds (PNAs), and metals in soil, and metals in groundwater exceeding Michigan's Part 201 Generic Cleanup Criteria (GCC), including the Residential and Nonresidential Drinking Water/Drinking Water Protection (DW/DWP) criteria, Groundwater Surface Water Interface/Groundwater Surface Water Interface Protection (GSIP) criteria, and Direct Contact (DC) criteria. No exceedances of other Nonresidential GCC were identified. Toxicity Characteristic Leaching Procedure (TCLP) metals analysis completed on select soil samples collected from an area adjacent to the current dock did not identify concentrations that would be considered characteristically hazardous for the purpose of disposal.

In December 2019, site investigations were conducted at the subject property on behalf of the United States Environmental Protection Agency (USEPA) by Tetra Tech, Inc. (Tetra Tech), which included a radiation survey, the collection of two onsite surface water samples (RCB-Water-01 and RCB-Water-02) and four surface soil samples (RCB-Soil-01 through RCB-Soil-04). The surface water and soil samples were submitted for analysis of PNAs, polychlorinated biphenyls (PCBs), metals (including uranium and beryllium), and total cyanide.

The results of the 2019 site investigation activities did not identify radiation levels exceeding background levels except for one location (Radiation-01). Various metals concentrations were identified in soil exceeding the Part 201 Nonresidential DWP, GSI, and/or DC cleanup criteria. Uranium concentrations were identified in soil and onsite surface water samples above laboratory method detection limits but below the applicable EPA Industrial Soil Removal Management Levels (RMLs) or EPA Region 4 Acute Exposure Surface Water Ecological Screening Values. Concentrations of the remaining analytes were not detected above the applicable Part 201 Nonresidential cleanup criteria. The results of the December 2019 investigation remain on file with EGLE and the USEPA.

Based on the presence of soil and groundwater concentrations at the subject property exceeding the Part 201 GCC, the subject property is a Facility as defined under Michigan Part 201 of 1994, as amended.

1.2 November 2019 River Bank Failure

A failure of approximately 200-feet of shoreline along the bank of the Detroit River occurred at the subject property on November 26, 2019. A large aggregate stockpile owned by Detroit Bulk Storage was present in the area at the time of the incident. The presence of the aggregate stockpile resulted in an apparent rotational slope failure that displaced soils downward within and outward from the subject property to an area of the Detroit River immediately east of the former shoreline boundary.

Hydrographic surveys of the river bottom were completed by Youngs Consulting, LTD (Youngs), Big Rapids, Michigan, in the area of the subject property on September 24, 2019, prior to the bank failure, and again on November 29, 2019 following the bank failure incident. The surveys were completed using a continuous reading precision fathometer operating at 200 kilohertz (KHz) with a 3-degree side mounted transducer.

Depth sounding documentation from the September and November 2019 hydrographic surveys document that the bank failure material extends approximately 400-feet southward from an area located approximately 15-feet north of the northern subject property boundary and is present at locations between 50 and 115-feet from the shore line. The approximate thickness of the bank failure material ranges from less than a foot to a maximum of 21-feet, with an estimated volume of 9,000 cubic yards. Appendix A within the January 24, 2020 Interim Response Plan prepared for the subject property includes a summary of bank failure material thicknesses based on the Hydrographic surveys. That report remains on file with EGLE.

Subsequent to the apparent bank failure incident, the aggregate material was reportedly removed from the area by Detroit Bulk Storage between November 29 and December 5, 2019, to an elevation approximately equivalent to the surrounding ground surface within the failure area. The aggregate material was relocated to an area west of the bank failure area.

Between December 11 and December 13, the area formerly occupied by the aggregate stockpile was further excavated by Detroit Bulk Storage to recover aggregate material that had become located below the surrounding ground surface elevation as a result of the bank failure. The excavation was dug in the area currently occupied by a pond and reportedly reached an approximate maximum depth of 20-feet during exploratory test pitting.

At that depth, the asphalt-gravel surfacing that was previously located at the pre-incident ground surface reportedly was encountered by Detroit Bulk Storage and the excavation was not dug beyond that depth, nor was the entire excavation reportedly advanced to that depth.

Similar to the aggregate removed between November 29 and December 5, 2019, aggregate removed between December 11 and December 13, 2019 was relocated to an area west of the bank failure area. Water was reportedly present in the excavation area during the aggregate recovery activities, which formed the current pond after the excavation activities were complete.

As summarized in the February 5, 2020 Bank Failure Area Aggregate Material Removal Visual Stability Evaluation Summary prepared of the subject property by PM, based on the information and documentation provided by Detroit Bulk Storage, the pond area was excavated using power equipment and its presence is consistent with a dug pond. That report remains on file with EGLE.

2.0 GEOTECHICAL INVESTIGATION AND RIVER BANK FAILURE MATERIAL CHARACTERIZAITON ACTIVITIES

This section summarizes the geotechnical investigation and river bank failure material characterization activities conducted by G2 and PM, respectively, in February 2020.

2.1 Aerial Visual Stability Inspections

Surface monitors were installed at the subject property by G2 to act as reference points, which are monitored visually on a weekly basis using an aerial drone to detect potential visual movement of the bank failure area over time.

A baseline visual aerial drone survey was conducted on December 13, 2019 with weekly aerial drone flyovers (surveys) initiated on January 17, 2020. The results of the weekly drone flyovers documents that no significant visual surface movement has been observed in the bank failure

area since December 13, 2019. Refer to the March 17, 2020 Flight and Status Report prepared by G2, which is included in Appendix E of the March 10, 2020 Report on Geotechnical Investigation prepared by G2 (Appendix A of this report).

Weekly aerial drone flyovers will continue at the subject property until construction of a new sea wall is complete at the subject property (refer to Section 3.0).

In the event that visual or inclinometer monitoring detects evidence of soil movement indicative of a potential additional bank failure at the subject property, EGLE, the United States Army Corps of Engineers (USACE), and the USEPA will be notified within 24 hours of discovery, and additional interim actions will be evaluated/implemented.

2.2 Site Stability Evaluation

G2 issued a February 18, 2020 Site Stability Evaluations report, which was submitted to and remains on file with EGLE, and concludes that the site is stable in its present condition so long as aggregate stockpiling activities are conducted at a distance greater than 400 feet of the river shoreline. A slope stability evaluation is also included in the March 10, 2020 Report on Geotechnical Investigation prepared by G2 (Appendix A of this report).

2.3 February 2019 Geotechnical Investigation

To define and evaluate existing geotechnical conditions at the subject property, including stability and suitability of potential shoreline restoration alternatives the following geotechnical investigation activities were completed between February 13 and 24, 2020:

- Five geotechnical borings (B-101, B-101A, and B-102 through B-104) were advanced to a maximum depth of 105-feet below ground surface (bgs) to evaluate geotechnical conditions using hollow stem auger and mud rotary methods. The locations of the geotechnical borings are depicted on Figures 3, 4, 5A, 5B, 5C, 6, and 7.

- Soil sampling using the Standard Penetration Test Method was completed at regular intervals within the borings with field vane shear testing also completed.

- Geotechnical inclinometers were installed within borings B-103 and B-104, with the remainder of the borings backfilled with grout following completion.

  Inclinometer baseline monitoring was initiated in March 2020 with inclinometer inspections to be combined with visual stability inspections, on a weekly basis.

Non-disposable drilling equipment was decontaminated between and after sampling. Decontamination materials/wastes and drilling spoils generated during the borings were placed in 55-gallon drums for characterization and proper disposal at a later date.

Subsurface geology identified during the geotechnical investigation is consistent with geology identified during previous environmental investigations and was summarized by G2 as consisting of sand, gravelly sand, gravel, and sandy gravel to an approximate depth of 12 to 20 feet bgs. Native silty clay soils underlie the shallow soils that extends to depths ranging from 91 to 98 feet bgs. Hardpan soils consisting of sand and clay underlie the native silty clay soils and extend to

the maximum explored depth ranging from 96 to 105 feet. Shallow groundwater was encountered at depths ranging from 2.5 to 4.0 feet bgs.

Soil boring logs for the geotechnical borings advanced by G2 are included in Appendix A of the March 10, 2020 Report on Geotechnical Investigation prepared by G2 (Appendix A of this report). That report also includes soil moisture, cohesion, density, and slope stability evaluations, which were used to develop the Seawall Reconstruction Plan included in Appendix F of the report, which is also depicted on Figure 10 of this report. Although the existing dock will not be used following the construction of a new seawall at the subject property an evaluation of the construction of the existing dock, including the condition of the associated tiebacks is also included in G2's March 10, 2020 report.

2.4 February 2020 Bank Failure Material and Site Characterization Activities

Restoration of the bank failure area will include removal of the material present within the Detroit River as a result of the failure event and sufficient underlying sediment to facilitate a proposed vessel draft of 27-feet adjacent to the new sea wall (Section 3.0).

It was originally anticipated that the bank failure material may be suitable for relocation on the subject property in accordance with Section 20120c of Part 201 and would be used in that manner. Therefore, soil, groundwater, and onsite surface water sampling was conducted (on land) in the bank failure area to further document current concentrations in those media and to determine whether the river material and onsite soils were sufficiently similar for onsite relocation to occur.

However, based on the geotechnical analysis (Appendix A), the Seawall Reconstruction Plan calls for placement of self-compacting gravel fill behind the new sea wall such that the bank failure material will not be reused onsite. Rather it will be removed for disposal at a licensed disposal facility as outlined in Section 3.7.

The bank failure material and sediment sampling activities were conducted in general accordance with EGLE Sediment Testing for Dredging Projects WRD-048 Document, dated April 13, 2018, as referenced in the January 31, 2020, Compliance Communication issued for the subject property by EGLE. Analytical data from the bank failure area characterization activities will be used to support preparation and submittal of a Joint Permit Application for construction activities to the USACE and EGLE as outlined in Section 3.2.

Characterization activities conducted within on land and river bank failure areas are outlined in Sections 2.4.1 and 2.4.2 below.

2.4.1 On Land Bank Failure Area Sampling

On land characterization activities were completed on February 10, 2020, and included the advancement of three soil borings (SB-12 through SB-14) to a maximum depth of 20.0 feet bgs using a Geoprobe® drill rig and stainless steel hand auger, and the installation of three temporary monitoring wells (TMW-12 through TMW-14), which were screened to intersect the shallow water table. Appendix B includes soil boring logs and temporary monitoring well installation diagrams.

The temporary monitoring wells were allowed to stabilize prior to sampling on February 20, 2020, which included temporary monitoring wells TMW-12 and TMW-13. Temporary monitoring well TMW-14 was noted to be dry, possibly due to ice or variation in groundwater elevations at the

time of sample collection; therefore, a groundwater sample was not collected from TMW-14. Surface water sampling in the pond was also completed (sample P-1).

All soil borings were screening visually and using a photo-ionization detector (PID), radiation detector, and x-ray fluorescence (XRF) meter calibrated to detect thorium and uranium. No elevated radiation levels were identified during field screening of the soils recovered from the soil borings and no detectable thorium or uranium concentrations were identified during XRF screening. Two soil samples each were collected from soil borings SB-12 and SB-13, with one sample collected at SB-14 due to the loose soils present at that soil boring, which prevented its advancement beyond 3-feet bgs.

All drilling and sampling equipment was decontaminated prior to the start of field activities and between soil boring locations, with all investigation derived waste placed in sealed, labeled drums, for proper disposal at a later date.

Soil, groundwater, and surface water samples, as well as quality control/quality assurance (QA/QC samples) collected during the on land characterization activities were placed in appropriately labeled/preserved sample containers and transported under chain of custody procedures to ALS Global laboratories for chemical analysis of volatile organic compounds (VOCs), polynuclear aromatic compounds (PCBs), polychlorinated biphenyls (PCBs), and metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thorium, uranium, and zinc).

Soil samples exhibiting total chromium and/or lead concentrations from soil boring SB-13 that exceeded 20-times the Resource Conservation and Recovery Act (RCRA) toxicity characteristic concentrations were submitted for additional analysis of TCLP chromium and lead to determine whether those soils would be considered characteristically hazardous for the purpose of disposal.

QA/QC samples included trip blank (Trip Blank #1), field blank (A-1), and equipment blank A-2 samples, which were analyzed for VOCs, PNAs, PCBs, and metals or some combination thereof.

Tables 1A, 2A, 3A, 4A, 5A, 5B, 6B, and 7 include a summary of the laboratory analytical results along with a comparison to the Part 201 Residential and Nonresidential cleanup criteria, as well as the USEPA Industrial Soil RMLs, and toxicity characteristic concentrations under 40 CFR 261.24. Figures 3 and 6 also summarize the soil, groundwater, and surface water analytical results along with the analytical results of 2015 soil and groundwater analytical results sourced from the July 14, 2015 Baseline Environmental Assessment report prepared for the subject property by PM, which remains on filed with EGLE.

Laboratory analytical reports are included in Appendix C.

2.4.1.1 On Land Bank Failure Area Analytical Results

Soil Analytical Results

The PM soil boring locations are depicted on Figures 3 and 7, with a summary of the analytical results, and the soil analytical results are also included in Tables 1A, 2A, 3A, 4A, and 6B.

Concentrations of various PNAs and metals were identified above the Part 201 Nonresidential DWP and/or GSIP GCC at soil boring locations SB-12 through SB-14, with no concentrations exceeding the USEPA RMLs (includes thorium and uranium). Concentrations of various VOCs were also identified above laboratory method detection limits (MDLs) but do not exceed the Part 201 Nonresidential GCC or USEPA RMLs.

A concentration of PCBs was identified above laboratory MDLs in soil boring SB-13 (3.5 to 4.5'), which does not exceed the Toxic Substance Control Act (TSCA) Subpart D criteria for low-occupancy areas without a surface cap applicable to this area of the subject property, or the Part 201 GCC.

Results of the TCLP analysis did not identify chromium or lead concentrations above RCRA Toxicity Characteristic concentrations indicating that they would not be considered characteristically hazardous for the purpose of disposal.

The analytical results of the soil samples collected from the subject property in 2020 appear consistent with the analytical results from previous site investigations.

Groundwater Analytical Results

The PM temporary monitoring well locations are depicted on Figure 6 with a summary of the analytical results, and the groundwater analytical results are also included in Table 5A.

Concentrations of various metals were identified above the Part 201 Nonresidential DW and/or GSI GCC at temporary monitoring well locations TMW-12 and TMW-14, with concentrations or cadmium and lead at temporary monitoring well TMW-12 exceeding the USEPA RMLs. No uranium or thorium concentrations were identified exceeding USEPA RMLs.

No concentrations of VOCs, PNAs, PCBs were identified above laboratory method detection limits (MDLs).

The analytical results of the groundwater samples collected from the subject property in 2020 appear consistent with the analytical results from previous site investigations.

Surface Water Analytical Results

The PM surface water sample location is depicted on Figure 6 with a summary of the analytical results, and the surface water analytical results are also included in Table 5B.

Concentrations of the metals barium and zinc were identified above laboratory MDLs in surface water sample P-1 but do not exceed the Part 201 GSI GCC or USEPA RMLs. No uranium or thorium concentrations were identified exceeding USEPA RMLs.

No concentrations of VOCs, PNAs, PCBs were identified above laboratory method detection limits (MDLs).

2.4.2 Bank Failure Material and Sediment Characterization

Bank failure material and sediment characterization activities were completed between February 11 and 17, 2020. Those activities included advancing 13 core samples within the bank failure material and underlying sediment (S-1 through S-13), with a terminal depth of 5-feet into the sediment, using a barge-mounted sonic drill rig. Discrete samples (not exceeding 1-foot in thickness) were collected from each five foot interval within the bank failure material, with field screening completed visually and using a photo-ionization detector, radiation detector, and an XRF meter calibrated to detect thorium and uranium, to aid in sample selection.

Following receipt of comments from the USEPA and EGLE on February 12, 2020, sediment cores were replicated with discrete samples of the river sediment collected in one-foot increments for laboratory analysis, in nine locations (S-3, S4, S-6, S-7, and S-8R through S-13R).

No elevated photo-ionization detector readings or elevated radiation or XRF levels were identified during field screening of the soils/sediments recovered from the core samples. All tooling was also screened using the radiation meter prior to and following sampling with no radiation detected.

All tooling and sampling equipment was decontaminated prior to sampling, between each sample location, and following the completion of sampling, with all decontamination materials recovered for proper disposal.

All of the borings were backfilled with bentonite grout and all recovered materials and decontamination liquids were placed in sealed, labeled drums, the contents of which are being characterized for proper disposal at a later date.

Bank failure material and sediment samples, as well as QA/QC samples were placed in appropriately labeled/preserved sample containers and transported under chain of custody procedures to ALS for chemical analysis of VOCs, PCBs, PCBs, metals, total phosphorous, pH, and Biochemical Oxygen Demand (BOD).

Selected samples exhibiting total arsenic, cadmium, chromium, and/or lead concentrations were also submitted for TCLP analysis based on the results of preliminary analysis completed by the laboratory, to determine appropriate management of the material as a waste.

QA/QC samples included trip blank (Trip Blank #1), field blank (A-1), and equipment blank A-2 samples, which were analyzed for VOCs, PNAs, PCBs, and metals or some combination thereof.

Tables 1B, 1C, 2B, 2C, 3B, 3C, 4B, 4C, 6A, and 7 include a summary of the laboratory analytical results along with a comparison to the Part 201 Residential and Nonresidential cleanup criteria, as well as the USEPA Industrial Soil RMLs, and toxicity characteristic concentrations under 40 CFR 261.24. Figures 4, 5A, 5B, 5C, and 7 also summarize the bank failure and sediment analytical results.

Laboratory analytical reports are included in Appendix C.

2.4.2.1 Bank Failure Material and Sediment Analytical Results

Bank Failure Material Analytical Results

The PM bank failure sample locations are depicted on Figure 4, with a summary of the analytical results, and the soil analytical results are also included in Tables 1B, 2B, 3B, 4B, and 6A.

Concentrations of the PNA specie fluoranthene and/or phenanthrene were identified above the Part 201 GSIP GCC in core samples S-1, S-3, S-4, S-5, and S-6. The co-located sample at sample location S-6 did not exceed the Part 201 GSIP GCC.

Concentrations of various metals were identified above the Part 201 Nonresidential DWP, GSIP and/or DC GCC in all of the bank failure material samples collected, with a concentration of the metal species lead exceeding the USEPA RMLs in core sample S-4 (7.0-8.0 feet bgs). No thorium or uranium concentrations were identified above the USEPA RMLs.

Concentrations of various VOCs were also identified above laboratory method detection limits (MDLs) but do not exceed the Part 201 Nonresidential GCC or USEPA RMLs. No PCB concentrations were identified above laboratory MDLs.

pH levels ranged from 7.48 Standard Units (SU) to 11.0 SU and BOD concentrations ranged from 7.8 to 3,800,000 µg/kg. There are no Part 201 GCC or USEP RMLs for pH or BOD. The pH levels did not exceed a range (≤2 SU or ≥12.5 SU) where they would be considered characteristically hazardous for the purpose of disposal.

Results of the TCLP analysis did not identify chromium or lead concentrations above RCRA Toxicity Characteristic concentrations indicating that they would not be considered characteristically hazardous for the purpose of disposal. However, a concentration of cadmium at core sample location S-4 (7.0 to 8.0 feet bgs) exceeded the RCRA Toxicity Characteristic concentrations. This area will be re-sampled with additional delineation samples also collected in the immediately surrounding area to determine whether the identified TCLP cadmium concentration is potentially anomalous and to document the potential extent of elevated cadmium concentrations in the failure material at core sample S-4 to facilitate targeted removal and special disposal (Section 3.3).

Excluding the potentially anomalous TCLP cadmium concentration at core sample S-4, the analytical results of the failure material samples appear similar to the analytical results of the on land soil samples collected in February 2020 and those collected from on land locations during previous investigations.

Sediment Analytical Results

The PM sediment sample locations are depicted on Figures 5A, 5B, and 5C, with a summary of the analytical results, and the soil analytical results are also included in Tables 1C, 2C, 3C, 4C. and 6B.

Concentrations of various VOCs were identified in the sediment samples above laboratory MDLs with concentrations of the petroleum VOC specie ethylbenzene1,2,4-trimethylbenzene (TMB), 1,3,5-TMB and xylenes exceeding the Part 201 Nonresidential DWP and/or GSIP GCC at the composite sediment core sample (0.0 to 5.0-feet below bottom surface) collected at core sample

S-9. However, none of the discrete samples collected from 1-foot intervals in the corresponding core sample S-9R exceeding the Part 201 GCC. None of the identified VOC concentrations exceed USEPA RMLs.

Concentrations of various PNAs were identified above the Part 201 Nonresidential DWP and/or GSIP GCC at the composite sediment core samples (0.0 to 5.0-feet below bottom surface) collected at core sample locations S-9, S-10, and at discrete samples collected from 1-foot intervals at core samples SG-9 (all discrete intervals from 0.0 to 5.0-feet below bottom surface) and S-13 (0.0 to 1.0 and 2.0 to 3.0 feet below bottom surface). None of the discrete samples collected from 1-foot intervals in the corresponding core sample S-10R exceeded the Part 201 GCC.

The locations of core samples S-9, S-10, and S-13 appear to be outside of the area where failure material is present, based on a review of borings logs (Appendix B) such that the PNA concentrations identified in those may be representative of typical river sediment concentrations in the area; especially as the number and concentration of PNA species identified at core sample S-9/S-9R are different than those identified in the bank failure material samples.

Concentrations of various metals were identified above the Part 201 Nonresidential DWP, GSIP, and/or DC at all of the sediment core sample locations, with concentrations of the metals arsenic at S-9R (0.0 to 1.0-foot below bottom surface), and lead at S-9R (3.0 to 4.0-feet below bottom surface) also exceeding the USEPA RMLs. Comparison of metals concentrations in the bank failure material samples to the sediment samples indicates that concentrations of the metals chromium, copper, lead, and zinc are generally lower in the sediment samples, consistent with their deeper location and clay composition.

No PCB concentrations were identified above laboratory MDLs.

pH levels ranged from 7.81 SU to 10.6 SU and BOD concentrations ranged from 6.9 to 180,000 µg/kg. There are no Part 201 GCC or USEP RMLs for pH or BOD. The pH levels did not exceed a range (≤2 SU or ≥12.5 SU) where they would be considered characteristically hazardous for the purpose of disposal. Total phosphorous concentrations were not identified above the Part 201 GCC.

Results of the TCLP analysis did not identify arsenic, chromium, or lead concentrations above RCRA Toxicity Characteristic concentrations indicating that they would not be considered characteristically hazardous for the purpose of disposal.

2.4.3 Geology and Hydrogeology

Based on a review of soil boring logs sourced from previous and current environmental investigations (Appendix B), subsurface geology at the subject property generally varies across the subject property and consists of clayey sand or gravelly sand to between 3.0 and 11.0 feet bgs with intermittent concrete and brick debris, underlain by soft clay to a depth of at least 20.0 feet bgs. This is consistent with the subsurface geology described by G2 (Appendix A), which was identified as sand, gravelly sand, gravel, and sandy gravel to an approximate depth of 12 to 20 feet bgs, underlain by silty clay soils from 91 to 98 feet bgs, and hardpan soils consisting of sand and clay to the maximum explored depth of 105 feet bgs.

Groundwater was encountered within shallow sandy soils at depths between 2.5 and 8.5 feet bgs, with groundwater flow previously documented to the southeast, towards the Detroit River.

Materials within the bank failure area (i.e. at core samples S-1 through S-8) were present at depths between 6.0 and 27.0 feet below the river surface, with material consisting of sand, various debris (primarily concrete and wood), and sandy clay with thicknesses ranging from 3.0 to 17.0 feet, which is underlain by soft clay that appears native.

Beyond the immediate bank failure area, sediments consisting of gravel, clayey sand, and sandy clay with thicknesses ranging from 1.0 to 5.0 feet at core sample locations S-9 through S-13, which are present at depths between 29.0 and 33.0 feet below the river surface. Those sediments contain trace amounts of brick, glass, wood, or concrete, that appear different than those in the failure area such that they don't appear to have been impacted by the bank failure. The shallow sediments in those areas are underlain by at least 5-feet of clay, consistent with what underlies materials in the failure area.

Conceptual cross sections depicting the depths and materials identified in the core samples are included as Figures 11A through 11F (Conceptual Cross Section A-A' with Analytical Results) and Figure 12 (Conceptual Cross Section B-B' with Analytical Results), respectively.

3.0 RESTORATION PLAN

This section summarizes restoration activities planned for the river bank at the subject property.

3.1 Description of New Sea Wall

A new sea wall will be constructed along the entire eastern boundary of the subject property, and will extend to the south adjoining property.

The wall system will consist of a sheet pile hybrid consisting of 93-foot long Z-shaped steel sheet pile panels in combination with 64 corresponding 54-inch diameter pipe piles, with a total horizontal wall length of 608.6 feet, and a corresponding concrete surface cap.

This system is to be driven into hardpan to provide the required vertical face with 27-feet of draft to facilitate lake freights. The 54-inch diameter pipe piles will be connected via 2-1/4 inch diameter steel tie-rods attached to 8-foot by 8-foot by 3-foot concrete dead-men pile caps, each of which will contain four embedded battered piles (driven into the hardpan) to provide the resistance required for the steel pile wall. The tiebacks assemblies will be spaced slightly less than 10-feet on center.

Refer to G2 Figures S-1 through S-4 in Appendix F of the March 10, 2020 Report on Geotechnical Investigation prepared by G2 (Appendix A of this report), for detailed drawings of the proposed sea wall. Figure 10 of this report also depicts the proposed sea wall.

It should be noted that the sea wall design included in G2's March 2020 Report on Geotechnical Investigation does not include reconstruction of the GLWA outfall, the design of which is being undertaken by the GLWA. However, as outlined in the schedule section below, it is expected that the sea wall will incorporate the GLWA outfall and that construction process will be undertaken concurrently with reconstruction of the GLWA outfall.

River bank restoration activities, including construction of the new sea wall will include the following activities:

- Preparation and submittal of permits for construction and failure material/sediments;
- Re-sampling and delineation activities at core sample location S-4;
- Installation of construction-phase erosion and turbidity controls;
- Removal of debris immediately east of the existing dock to facilitate sea wall construction;
- Installation (driven) of new sea wall pipe piles and sheet pile panels immediately east of the current dock and installation of battered piles further west;
- Removal of the current dock structure in combination with installation of associated tiebacks and dead-men, backfilling, and concrete cap installation;
- Removal and proper disposal of river bank failure material and sediment to a depth of 27-feet below river surface;
- Reporting and regulatory submittals, including as-built documentation for sea wall construction and river bank failure material and sediment removal/disposal activities;
- Preparation of a post-construction Documentation of Due Care Compliance report;

3.2 Permitting

Permits will be obtained from the City of Detroit, Wayne County, EGLE and the USACE, and the GLWA prior to construction to facilitate the river bank restoration activities.

These include the following:

- Construction Permit from the City of Detroit, including plan/engineering review;
- Soil Erosion and Sedimentation Control Permit from Wayne County;
- Joint Permit Application from EGLE and USACE for sea wall and river bank failure material and sediment removal activities, including the analytical results of bank failure and sediment characterization samples outlined in this report;
- Sanitary Discharge Permit from the GLWA for construction-water generated during restoration activities, including dewatering of the existing pond area (if needed);

If additional permits are requested or identified as requirements during the permitting process, they will also be obtained prior to construction. Notice regarding the presence, type, and concentration of contaminated media at the subject property and within the river bank failure area will also be provided to all construction personnel prior to the start of construction.

3.3 Replicate-Sampling at Core Sample Location S-4

As indicated in Section 2.4.2.1, TCLP analytical results identified a concentration of cadmium at core sample location S-4 (7.0 to 8.0 feet bgs) that exceeded the RCRA Toxicity Characteristic concentrations.

This area will be re-sampled by advancing a replicate core sample (S-4R) using either a barge-mounted drill rig or a vibracore sampler to a depth of 22-feet below the river surface or the interface between the bank failure material and the underlying clay soils (i.e. approximately 10-feet below bottom surface). Figure 9 depicts the proposed location of S-4R.

Soils in one foot increments (up to 7 samples total) will be collected from 3.0 to 10.0 feet below bottom surface, from the replicate boring and submitted for laboratory analysis of Michigan-10 metals and nickel, and TCLP RCRA-8 metals.

Up to four additional core samples will also be advanced in areas located approximately 10 to 15 feet north (S-4N), south (S-4S), east, and west of S-4 for delineation purposes, with bank failure material in one foot increments (up to 7 samples total) collected from will be collected from 3.0 to 10.0 feet below bottom surface, from each delineation core sample and submitted for laboratory analysis of Michigan-10 metals and nickel, and TCLP RCRA-8 metals. The delineation samples will remain on hold at the laboratory and will only be analyzed if the replicate sampling at S-4R confirms the original results. As with S-4R, the delineation core samples will be advanced using either a barge-mounted drill rig or a vibracore sampler to a depth of 22-feet below the river surface or the interface between the bank failure material and the underlying clay soils (i.e. approximately 10-feet below bottom surface).

Figure 9 depicts the proposed locations of the S-4 area delineation core samples.

The results of the replicate and delineation sampling will be included in a supplemental report submitted to EGLE, with the results also included in the Joint Permit Application for sea wall and river bank failure material and sediment removal activities.

3.4 Installation of Construction-Phase Erosion and Turbidity Controls

The current 5-foot turbidity curtains and erosion control blankets will remain in place until they directly conflict with construction activities. In preparation for sea wall installation in combination with GLWA outfall restoration and bank failure and sediment removal activities, Additional turbidity controls will be installed to fully enclose the proposed area of construction and removal activities, as depicted on Figure 10.

These controls will consist of a line of temporary steel sheeting extending approximately 75-feet eastward from the northern property boundary, and type 2 fast water turbidity curtains with a curtain length of between 20 and 30-feet, which will be adjusted to correspond to the bottom depth of the river along the length of the curtains. The curtains will be installed per manufacturer recommendations with additional support in the form of driven pilings installed along the length of the curtains to ensure that a vertical orientation is maintained along their entire length.

The existing cable buoy line will extend around the turbidity curtains to provide security and restrict access to the construction and bank failure and sediment removal area for the river.

Daily inspections of the turbidity curtains and weekly inspections of the cable buoys will be competed, consistent with the current inspection protocol.

In the event that the replicate and delineation sampling in the area of S-4 document that the bank failure material there is characteristically hazardous for the purpose of disposal, the area will be surrounded with temporary steel sheeting to facilitate targeted removal, management and disposal of that material as a characteristically hazardous waste, independently before removal of the surrounding non-hazardous bank failure materials and surrounding and underlying non-hazardous sediment. If utilized, the temporary shoring will be removed prior to installation of the sea wall and removal of the bank failure material and sediment.

Additional erosion and tracking controls including silt fencing, and gravel mats may also be installed, as required by the Soil Erosion and Sedimentation Control permit issued by Wayne County.

3.5 Debris Removal for Sea Wall Installation

To ensure the stability of the shoreline and river bank failure area during construction and failure material/sediment removal, the new sea wall pipe piling and sheet piling will be installed prior to removal of the existing dock and prior to removal of adjoining failure material and sediments from the river.

To facilitate this, the sea wall piling material will be installed immediately east of the current dock boundary. However, since concrete and wood debris was encountered in this area during the core sampling activities, large debris that may conflict with the piling materials will be removed from the area ahead of the piling installation.

The recovered debris will be staged at least 400 feet west of the current shoreline, on a paved surface or on plastic sheeting and covered in accordance with the requirements of R299.4130 for waste piles prior to disposal.

3.6 Sea Wall Construction

Following debris removal the sea wall will be constructed per the design included in G2's March 2020 Report on Geotechnical Investigation.

The existing wood and concrete dock structure will be removed following the installation of the pipe and sheet piles, with the resulting demolition debris transported for disposal at a Type 2 Landfill.

Prior to installation of the tieback and dead-men structures, the current pond area will be backfilled with self-compacting aggregate. It is expected that the aggregate will displace much of the water within the pond, analytical results of which (Section 2.4.1.1) document that it is not characteristically hazardous for the purpose of disposal. Therefore, the water within the pond will be discharged to the sanitary sewer under permit with the GLWA, with any monitoring, sampling, and reporting conducted in accordance with the GLWA permit.

Soils within the construction area that cannot remain in place will be appropriately characterized and transported for disposal at a type 2 landfill. If stockpiling of soils is required prior to transport and disposal, the stockpile will be located at least 400 feet west of the current shoreline, on a paved surface or on plastic sheeting, and covered in accordance with the requirements of R299.4130 for waste piles prior to disposal.

Prior to installation of the concrete surface cap, the area west of the sea wall will be backfilled to the design elevation with self-compacting aggregate.

Inspection and record keeping/reporting activities will be conducted in accordance with the Soil Erosion and Sedimentation Control permit issued by Wayne County of the entire duration of construction.

3.7 River Bank Failure Material and Sediment Removal

As indicated in Section 3.3, a Joint Permit Application from EGLE and USACE for sea wall and river bank failure material and sediment removal activities will be prepared and submitted for approval prior to starting any removal activities.

Subject to the provisions of the approved Joint Permit, the activities will include removal of bank failure material to a depth of 27-feet below the river surface using a clamshell dredge and barge to a depth of 27-feet below the river surface. Large debris greater than 1 cubic yard such as wood or concrete that cannot be disposed or accepted for disposal without additional processing will be separated from the material and staged in a separate barge or onsite in a location least 400 feet west of the current shoreline, on a paved surface or on plastic sheeting and covered in accordance with the requirements of R299.4130 for waste piles prior to disposal. The large debris will be characterized prior to processing into smaller pieces for analysis of TCLP RCRA-8 metals, PCBs, and TCLP SVOCs, and disposed at a licensed disposal facility based on its characteristics.

The removed bank failure material and underlying sediment will be transported for disposal at a Type 2 landfill or Confined Disposal Facility, in accordance with the approved Joint Permit.

Daily inspections of turbidity curtains will be completed with records maintained by Revere Dock, which will include a visual inspection of the turbidity curtains and the water within the removal area and the river outside of it to ensure the effectiveness of the turbidity controls. In the event that visual monitoring identifies that the turbidity controls are ineffective the removal activities will stop and will not resume until the issue is resolved.

Contingency Excavation at Core Sample S-4 Location

As indicated in Section 3.4, if the replicate and delineation sampling in the area of S-4 document that the bank failure material there is characteristically hazardous for the purpose of disposal, the area will be surrounded with temporary steel sheeting (Figure 10) to act as containment and to facilitate targeted removal, management and disposal of that material as a characteristically hazardous waste before removal of any surrounding bank failure material and sediment. The subject property will be registered as a generator of hazardous waste with all training, contingency planning, and record-keeping requirements and protocols implemented prior to hazardous waste generation, transport, and disposal, in accordance with Michigan Part 111.

If needed solidification material such as fly ash, sand, or sawdust may be used to ensure that no free liquids are present in the material prior to transporting for offsite disposal at a licensed disposal facility

Verification samples would be collected from the S-4 area following removal to document successful removal of the characteristically hazardous material. Samples of the water in the containment area would also be collected for laboratory analysis of Michigan-10 metals, nickel, PCBs, and PNAs and TCLP RCRA-8 metals prior to removal of the temporary shoring. If target analyte concentrations in the water exceed the Part 201 GCC, Part 31 water quality standards, or toxicity characteristic limits, the water will be removed for proper disposal at a licensed disposal facility, or treated with a portable waste water treatment system operated under the supervision of a licensed wastewater operator to render it characteristically non-hazardous and to meet GLWA permit limits prior to discharge.

If the results of the proposed replicate sampling at S-4 document that the initial analytical results were anomalous and that the material at that location is not characteristically hazardous for the purpose of disposal, the contingency shoring and removal activities will not be required and the river bank failure material at S-4 will be removed with the rest of the material as outlined above.

3.8 Reporting and Regulatory Submittals

Following the completion of river bank restoration activities a Construction Report will be prepared that included the following:

- Summary of sea wall and GLWA outfall construction activities including as-built diagrams;
- Documentation of all river bank failure and sediment characterization, removal and disposal activities, including permit monitoring and reporting activities, laboratory analytical reports, waste disposal manifests, and reported regulatory reporting completed during construction.
- Regulatory notices and submittals prepared during construction activities;

In addition to the above, a pos-construction Documentation of Due Care Compliance report will be prepared, which will include protocols for ongoing operation and maintenance activities required to maintain compliance with the due care provisions of Section 20107a of Part 201.

The above reports will be made available to EGLE, the USEPA, USACE, and the City of Detroit.

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4.0 SCHEDULE

The activities outlined in this Restoration Plan will be conducted in accordance with the following schedule:

Proposed Dates of Key Milestones	
Activity	**Schedule**
Onsite Activities (Erosion Controls and Due Care Inspections)	
Inspection of 5-foot Turbidity Curtains	Ongoing – Daily
Security Fencing Inspections	Ongoing – Weekly
Inspections of Erosion Control Berm	Ongoing – Weekly
Inspections of Erosion Control Blankets	Ongoing – Daily
Construction Activities[1]	
Joint Permit Application Preparation and Submittal	Within 30 days of EGLE Approval of Restoration Plan
Construction, Erosion, and GLWA Discharge Permit Application Preparation and Submittal	Within 30 days of EGLE Approval of Restoration Plan
S-4 Area Re-sampling and Delineation Activities, Including Reporting	Within 45 Days of the Date of this Report
Installation of Construction and River Bank Failure/Sediment Removal Turbidity Controls	Within 30 Days of Joint Permit Approval
Sea Wall Construction	Start: Within 30 days of Joint Permit Approval Duration: 6 Months (Estimate)
GLWA Outfall Restoration[2]	Concurrently with Sea Wall Construction
S-4 Area Contingency Removal Activities	(If Required): Concurrently with Failure/Sediment Removal Activities (estimated 2 week duration)
River Bank Failure/Sediment Removal Activities	Start: Concurrently with Sea Wall Construction Duration: 6-8 Weeks
Post-Construction Documentation of Due Care Compliance Preparation	Within 45-days Following Completion of Construction and Bank Failure/Sediment Removal Activities
Construction Report Preparation	Within 60-days Following Completion of Construction and Bank Failure/Sediment Removal Activities

[1] Estimated timeline is dependent upon river conditions, the status of COVID-19 orders issued by local, state, or federal authorities, and permit approvals issued by regulatory agencies.
[2] Estimated timeline assumes that the GLWA outfall restoration can be implemented concurrently with onsite sea wall construction activities.

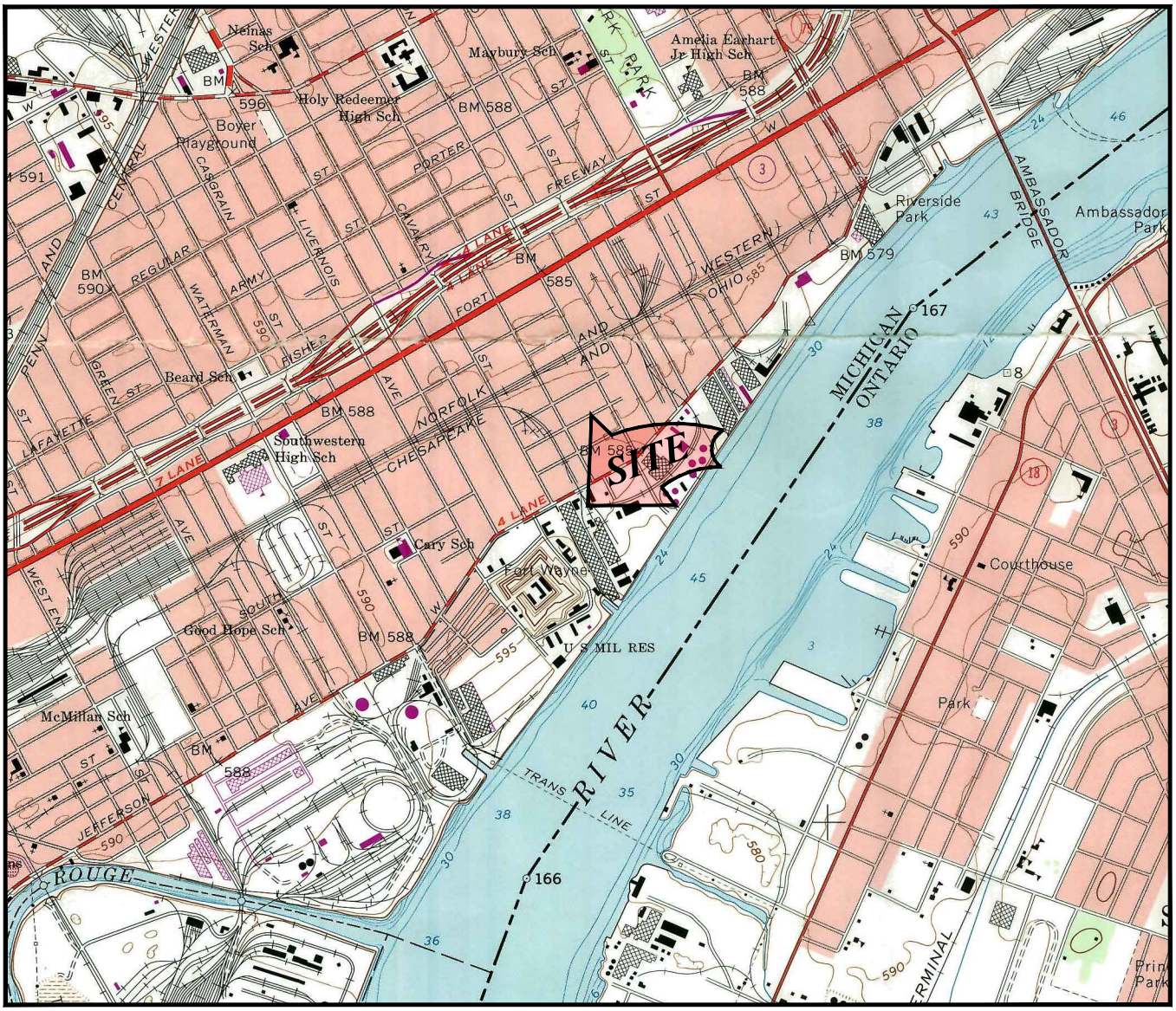
If you have questions regarding this report, please contact PM at 800-313-2966.

REPORT PREPARED BY:
PM Environmental, Inc.

J. Adam Patton, CHMM
Vice President

Figures

PM ENVIRONMENTAL | Environmental & Engineering Services



WAYNE COUNTY

SCALE 1:24,000

1 MILE 1/2 MILE 0 1 MILE

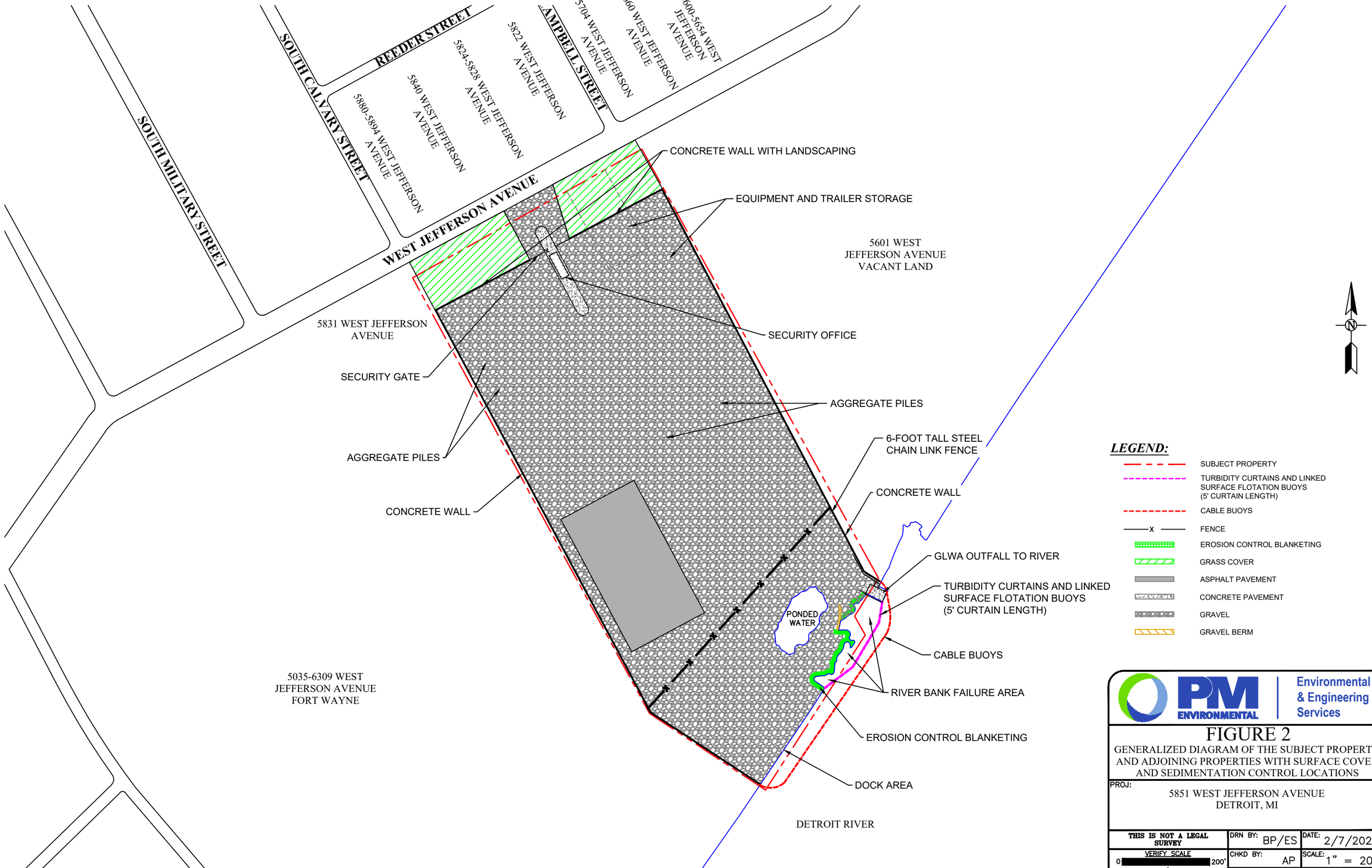
FIGURE 1

PROPERTY VICINITY MAP

USGS, 7.5 MINUTE SERIES

DETROIT, MI QUADRANGLE, 1968. PHOTO REVISED 1973 & 1980.

PM ENVIRONMENTAL — Environmental & Engineering Services	PROJ: 5851 WEST JEFFERSON AVENUE DETROIT, MI	THIS IS NOT A LEGAL SURVEY	DRN BY: ES/CS/BP	DATE: 1/10/2020
		VERIFY SCALE 0 — 2,000' IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	CHKD BY: RF/AP	SCALE: 1" = 2,000'
			FILE NAME: 01-5303-3-001F01R00	


SOUTH MILITARY STREET
SOUTH CALVARY STREET
REEDER STREET
CAMPBELL STREET
5880-5894 WEST JEFFERSON AVENUE
5840 WEST JEFFERSON AVENUE
5824-5828 WEST JEFFERSON AVENUE
5822 WEST JEFFERSON AVENUE
5704 WEST JEFFERSON AVENUE
5660 WEST JEFFERSON AVENUE
5600-5654 WEST JEFFERSON AVENUE
WEST JEFFERSON AVENUE
CONCRETE WALL WITH LANDSCAPING
EQUIPMENT AND TRAILER STORAGE
5601 WEST JEFFERSON AVENUE VACANT LAND
5831 WEST JEFFERSON AVENUE
SECURITY OFFICE
SECURITY GATE
AGGREGATE PILES
AGGREGATE PILES
6-FOOT TALL STEEL CHAIN LINK FENCE
CONCRETE WALL
CONCRETE WALL
GLWA OUTFALL TO RIVER
TURBIDITY CURTAINS AND LINKED SURFACE FLOTATION BUOYS (5' CURTAIN LENGTH)
PONDED WATER
CABLE BUOYS
RIVER BANK FAILURE AREA
EROSION CONTROL BLANKETING
DOCK AREA
5035-6309 WEST JEFFERSON AVENUE FORT WAYNE
DETROIT RIVER
N
LEGEND:
SUBJECT PROPERTY
TURBIDITY CURTAINS AND LINKED SURFACE FLOTATION BUOYS (5' CURTAIN LENGTH)
CABLE BUOYS
FENCE
EROSION CONTROL BLANKETING
GRASS COVER
ASPHALT PAVEMENT
CONCRETE PAVEMENT
GRAVEL
GRAVEL BERM
PM ENVIRONMENTAL
Environmental & Engineering Services
FIGURE 2
GENERALIZED DIAGRAM OF THE SUBJECT PROPERTY AND ADJOINING PROPERTIES WITH SURFACE COVER AND SEDIMENTATION CONTROL LOCATIONS
PROJ:
5851 WEST JEFFERSON AVENUE
DETROIT, MI
THIS IS NOT A LEGAL SURVEY
VERIFY SCALE
0 200'
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.
DRN BY: BP/ES
DATE: 2/7/2020
CHKD BY: AP
SCALE: 1" = 200'
FILE NAME: 01-5303-3-001F00R01

SB-8	
4/27/2015	
2.0 – 3.0'	
UNITS	ug/Kg
B	120
n-BUTYLB	51
ISOP	53
2-M	620
NAPH	600
n-PROP	57
T	570
1,2,3-TMB	240
1,2,4-TMB	320
1,3,5-TMB	91
X	1,100
OTHER VOCs	<MDL
ACE	1,700
ANT	3,500
B(a)ANTH	8,200
B(a)PYR	7,000
B(b)FLA	8,900
B(g,h,i)PER	3,600
B(k)FLA	4,800
CHRYSENE	7,900
FL	19,000
F	1,800
I(1,2,3-CD)PY	3,300
2-M	2,600
NAPH	2,200
Ph	14,000
Py	13,000
OTHER PNAs	<MDL
PCBs	<MDL
As	12,000
Ba	220,000
Cd	21,000
Cr	10,000
Cu	1,900,000
Pb	350,000
Hg	230
Se	2,700
Ag	350
Zn	2,100,000

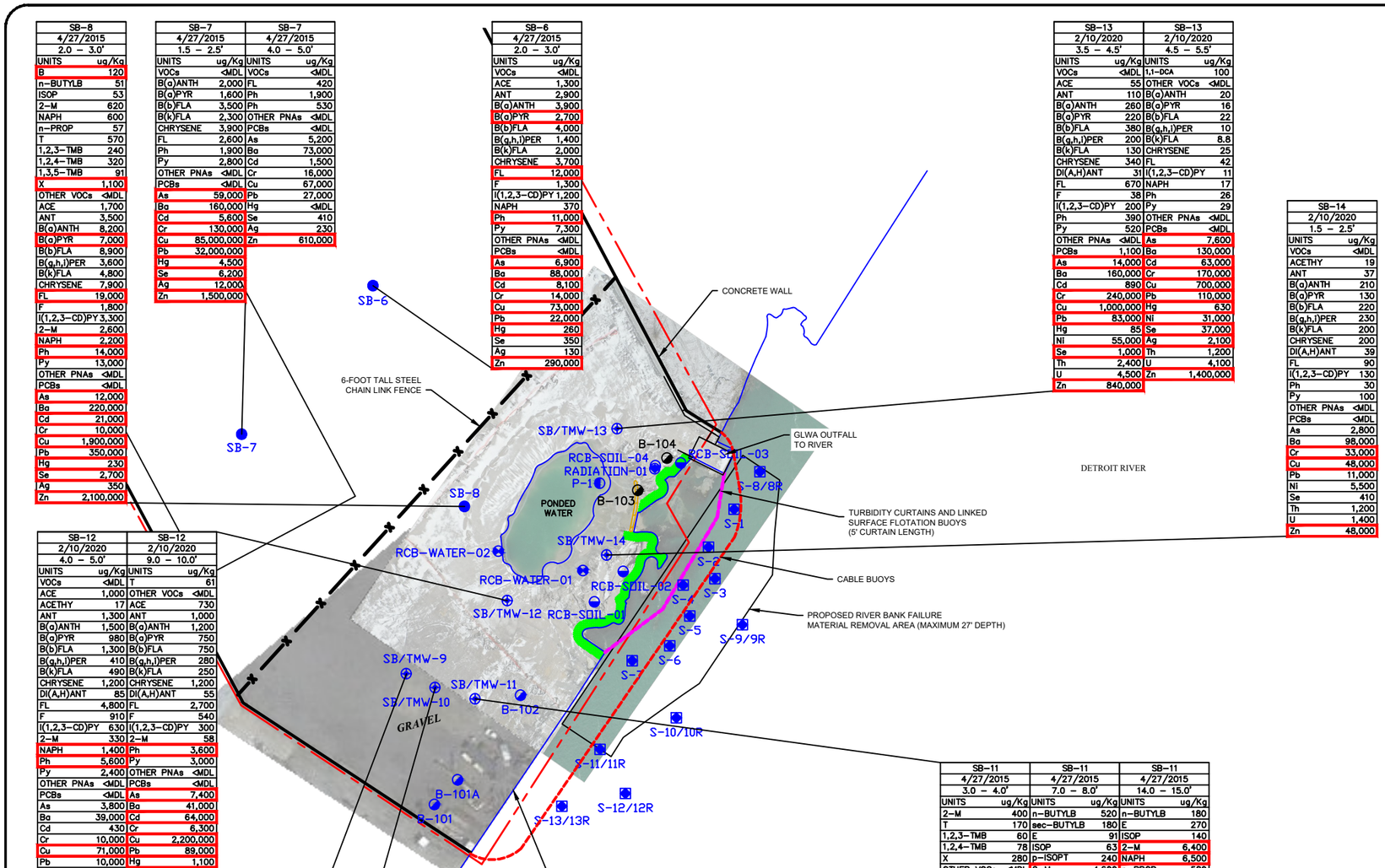
SB-7		SB-7	
4/27/2015		4/27/2015	
1.5 – 2.5'		4.0 – 5.0'	
UNITS	ug/Kg	UNITS	ug/Kg
VOCs	<MDL	VOCs	<MDL
B(a)ANTH	2,000	FL	420
B(a)PYR	1,600	Ph	1,900
B(b)FLA	3,500	Ph	530
B(k)FLA	2,300	OTHER PNAs	<MDL
CHRYSENE	3,900	PCBs	<MDL
FL	2,600	As	5,200
Ph	1,900	Ba	73,000
Py	2,800	Cd	1,500
OTHER PNAs	<MDL	Cr	16,000
PCBs	<MDL	Cu	67,000
As	59,000	Pb	27,000
Ba	160,000	Hg	<MDL
Cd	5,600	Se	410
Cr	130,000	Ag	230
Cu	85,000,000	Zn	610,000
Pb	32,000,000		
Hg	4,500		
Se	6,200		
Ag	12,000		
Zn	1,500,000		

SB-6	
4/27/2015	
2.0 – 3.0'	
UNITS	ug/Kg
VOCs	<MDL
ACE	1,300
ANT	2,900
B(a)ANTH	3,900
B(a)PYR	2,700
B(b)FLA	4,000
B(g,h,i)PER	1,400
B(k)FLA	2,000
CHRYSENE	3,700
FL	12,000
F	1,300
I(1,2,3-CD)PY	1,200
NAPH	370
Ph	11,000
Py	7,300
OTHER PNAs	<MDL
PCBs	<MDL
As	6,900
Ba	88,000
Cd	8,100
Cr	14,000
Cu	73,000
Pb	22,000
Hg	260
Se	350
Ag	130
Zn	290,000

SB-13	
2/10/2020	
3.5 – 4.5'	
UNITS	ug/Kg
VOCs	<MDL
ACE	55
ANT	110
B(a)ANTH	260
B(a)PYR	220
B(b)FLA	380
B(g,h,i)PER	200
B(k)FLA	130
CHRYSENE	340
DI(A,H)ANT	31
FL	670
F	38
I(1,2,3-CD)PY	200
Ph	390
Py	520
OTHER PNAs	<MDL
PCBs	1,100
As	14,000
Ba	160,000
Cd	890
Cr	240,000
Cu	1,000,000
Pb	83,000
Hg	85
Ni	55,000
Se	1,000
Th	2,400
U	4,500
Zn	840,000

SB-13	
2/10/2020	
4.5 – 5.5'	
UNITS	ug/Kg
1,1-DCA	100
OTHER VOCs	<MDL
B(a)ANTH	20
B(a)PYR	16
B(b)FLA	22
B(g,h,i)PER	10
B(k)FLA	8.8
CHRYSENE	25
FL	42
I(1,2,3-CD)PY	11
NAPH	17
Ph	26
Py	29
OTHER PNAs	<MDL
PCBs	<MDL
As	7,600
Ba	130,000
Cd	63,000
Cr	170,000
Cu	700,000
Pb	110,000
Hg	630
Ni	31,000
Se	37,000
Ag	2,100
Th	1,200
U	4,100
Zn	1,400,000

SB-14	
2/10/2020	
1.5 – 2.5'	
UNITS	ug/Kg
VOCs	<MDL
ACETHY	19
ANT	37
B(a)ANTH	210
B(a)PYR	130
B(b)FLA	220
B(g,h,i)PER	230
B(k)FLA	200
CHRYSENE	200
DI(A,H)ANT	39
FL	90
I(1,2,3-CD)PY	130
Ph	30
Py	100
OTHER PNAs	<MDL
PCBs	<MDL
As	2,800
Ba	98,000
Cr	33,000
Cu	48,000
Pb	11,000
Ni	5,500
Se	410
Th	1,200
U	1,400
Zn	48,000



SB-12	
2/10/2020	
4.0 – 5.0'	
UNITS	ug/Kg
VOCs	<MDL
ACE	1,000
ACETHY	17
ANT	1,300
B(a)ANTH	1,500
B(a)PYR	980
B(b)FLA	1,300
B(g,h,i)PER	410
B(k)FLA	490
CHRYSENE	1,200
DI(A,H)ANT	85
FL	4,800
F	910
I(1,2,3-CD)PY	630
2-M	330
NAPH	1,400
Ph	5,600
Py	2,400
OTHER PNAs	<MDL
PCBs	<MDL
As	3,800
Ba	39,000
Cd	430
Cr	10,000
Cu	71,000
Pb	10,000
Hg	24
Ni	12,000
Th	2,700
U	480
Zn	120,000

SB-12	
2/10/2020	
9.0 – 10.0'	
UNITS	ug/Kg
T	61
OTHER VOCs	<MDL
ACE	730
ANT	1,000
B(a)ANTH	1,200
B(a)PYR	750
B(b)FLA	750
B(g,h,i)PER	280
B(k)FLA	250
CHRYSENE	1,200
DI(A,H)ANT	55
FL	2,700
F	540
I(1,2,3-CD)PY	300
2-M	58
Ph	3,600
Py	3,000
OTHER PNAs	<MDL
PCBs	<MDL
As	7,400
Ba	41,000
Cd	64,000
Cr	6,300
Cu	2,200,000
Pb	89,000
Hg	1,100
Ni	6,400
Se	870
Ag	1,400
Th	1,200
Zn	3,100,000

SB-11	
4/27/2015	
3.0 – 4.0'	
UNITS	ug/Kg
2-M	400
T	170
1,2,3-TMB	60
1,2,4-TMB	78
X	280
OTHER VOCs	<MDL
ANT	870
B(a)ANTH	1,700
B(a)PYR	1,200
B(b)FLA	1,900
B(g,h,i)PER	810
B(k)FLA	1,000
CHRYSENE	1,700
FL	4,100
I(1,2,3-CD)PY	710
2-M	620
NAPH	530
Ph	3,400
Py	2,800
OTHER PNAs	<MDL
PCBs	<MDL
As	6,200
Ba	100,000
Cd	8,300
Cr	18,000
Cu	4,900,000
Pb	360,000
Hg	160
Se	1,600
Ag	620
Zn	3,900,000

SB-11	
4/27/2015	
7.0 – 8.0'	
UNITS	ug/Kg
n-BUTYLB	520
sec-BUTYLB	180
E	91
ISOP	63
p-ISOPT	240
2-M	4,600
NAPH	1,800
n-PROP	140
T	75
1,2,3-TMB	860
1,2,4-TMB	1,000
1,3,5-TMB	320
X	410
OTHER VOCs	<MDL
ACETHY	9,300
ANT	77,000
B(a)ANTH	110,000
B(a)PYR	68,000
B(b)FLA	91,000
B(g,h,i)PER	21,000
B(k)FLA	75,000
CHRYSENE	85,000
DI(A,H)ANT	3,100
FL	260,000
F	47,000
I(1,2,3-CD)PY	22,000
2-M	32,000
NAPH	69,000
Ph	290,000
Py	210,000
OTHER PNAs	<MDL
PCBs	<MDL
As	7,000
Ba	15,000
Cd	120,000
Cr	11,000
Cu	59,000,000
Pb	4,300,000
Hg	340
Se	5,200
Ag	8,700
Zn	130,000,000

SB-11	
4/27/2015	
14.0 – 15.0'	
UNITS	ug/Kg
n-BUTYLB	180
E	270
ISOP	140
2-M	6,400
NAPH	6,500
n-PROP	580
T	160
1,2,3-TMB	520
1,2,4-TMB	1,100
1,3,5-TMB	510
X	410
OTHER VOCs	<MDL
ACE	690
ANT	1,000
B(a)ANTH	1,600
B(a)PYR	1,400
B(b)FLA	1,300
B(g,h,i)PER	740
B(k)FLA	520
CHRYSENE	1,600
FL	2,800
F	530
I(1,2,3-CD)PY	550
2-M	750
NAPH	910
Ph	3,100
Py	2,800
OTHER PNAs	<MDL
PCBs	<MDL
As	120,000
Ba	190,000
Cd	6,500
Cr	98,000
Cu	2,600,000
Pb	560,000
Hg	130
Se	1,600
Ag	2,800
Zn	2,200,000

SB-9	
4/27/2015	
3.0 – 4.0'	
UNITS	ug/Kg
T	100
1,2,4-TMB	83
X	250
OTHER VOCs	<MDL
PNAs	<MDL
PCBs	<MDL
As	17,000
Ba	120,000
Cd	3,900
Cr	19,000
Cu	86,000
Pb	16,000
Hg	<MDL
Se	760
Ag	170
Zn	270,000

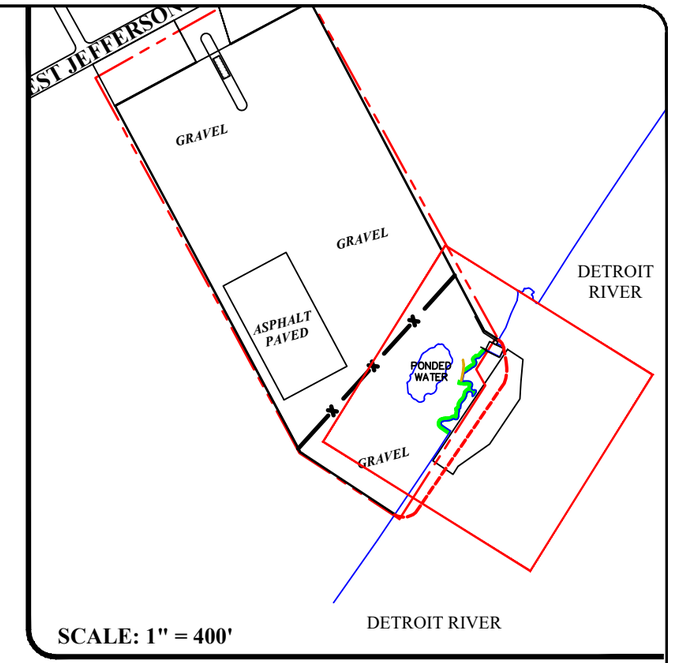
SB-9	
4/27/2015	
8.0 – 9.0'	
UNITS	ug/Kg
B	54
2-M	1,300
T	260
1,2,4-TMB	55
X	290
OTHER VOCs	<MDL
ANT	550
B(a)ANTH	760
B(b)FLA	730
B(k)FLA	560
CHRYSENE	1,200
FL	830
2-M	1,500
NAPH	900
Ph	2,200
Py	1,000
OTHER PNAs	<MDL
PCBs	<MDL
As	4,200
Ba	160,000
Cd	11,000
Cr	5,400
Cu	730,000
Pb	11,000
Hg	<MDL
Se	3,300
Ag	120
Zn	360,000

SB-9	
4/27/2015	
13.0 – 14.0'	
UNITS	ug/Kg
VOCs	<MDL
PNAs	<MDL
PCBs	<MDL
As	6,000
Ba	77,000
Cd	1,600
Cr	28,000
Cu	27,000
Pb	12,000
Hg	<MDL
Se	400
Ag	1490
Zn	70,000

SB-10	
4/27/2015	
2.0 – 3.0'	
UNITS	ug/Kg
T	89
OTHER VOCs	<MDL
ACE	410
ANT	1,100
B(a)ANTH	1,700
B(a)PYR	1,200
B(b)FLA	1,800
B(g,h,i)PER	870
B(k)FLA	740
CHRYSENE	1,600
FL	4,500
I(1,2,3-CD)PY	720
2-M	410
Ph	4,000
Py	3,200
OTHER PNAs	<MDL
PCBs	<MDL
As	8,200
Ba	100,000
Cd	20,000
Cr	120,000
Cu	17,000,000
Pb	360,000
Hg	89
Se	1,800
Ag	3,000
Zn	6,200,000

SB-10	
4/27/2015	
7.5 – 8.5'	
UNITS	ug/Kg
VOCs	<MDL
PNAs	<MDL
PCBs	<MDL
As	24,000
Ba	160,000
Cd	16,000
Cr	11,000
Cu	430,000
Pb	23,000
Hg	89
Se	710
Ag	200
Zn	1,100,000

SB-10	
4/27/2015	
13.0 – 14.0'	
UNITS	ug/Kg
VOCs	<MDL
PNAs	<MDL
PCBs	<MDL
As	9,900
Ba	79,000
Cd	1,500
Cr	23,000
Cu	28,000
Pb	10,000
Hg	<MDL
Se	520
Ag	170
Zn	60,000



LEGEND:

- SUBJECT PROPERTY
- TURBIDITY CURTAINS AND LINKED SURFACE FLOTATION BUOYS (5' CURTAIN LENGTH)
- CABLE BUOYS
- FENCE
- GRAVEL BERM
- EROSION CONTROL BLANKETING
- SOIL BORING
- SOIL BORING / TEMPORARY MONITORING WELL
- TETRA TECH SOIL SAMPLE LOCATION
- TETRA TECH WATER SAMPLE LOCATION
- TETRA TECH RADIATION MONITORING LOCATION
- DISCRETE SAMPLING LOCATION
- GEOTECHNICAL BORING
- GEOTECHNICAL BORING WITH INCLINOMETER
- SURFACE WATER SAMPLE

NOTE: ALL SAMPLE DEPTHS ARE BELOW RIVER BOTTOM DEPTH

SEE FIGURE 8 FOR ANALYTICAL LEGEND

PM ENVIRONMENTAL | Environmental & Engineering Services

FIGURE 3

SAMPLING LOCATION MAP WITH ON LAND SOIL ANALYTICAL RESULTS

PROJ: 5851 WEST JEFFERSON AVENUE DETROIT, MI

THIS IS NOT A LEGAL SURVEY

VERIFY SCALE 0 — 140' IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRN BY: BP/ES | DATE: 3/18/2020

CHKD BY: AP/SZ | SCALE: 1" = 140'

FILE NAME: 01-5303-3-001F00R01

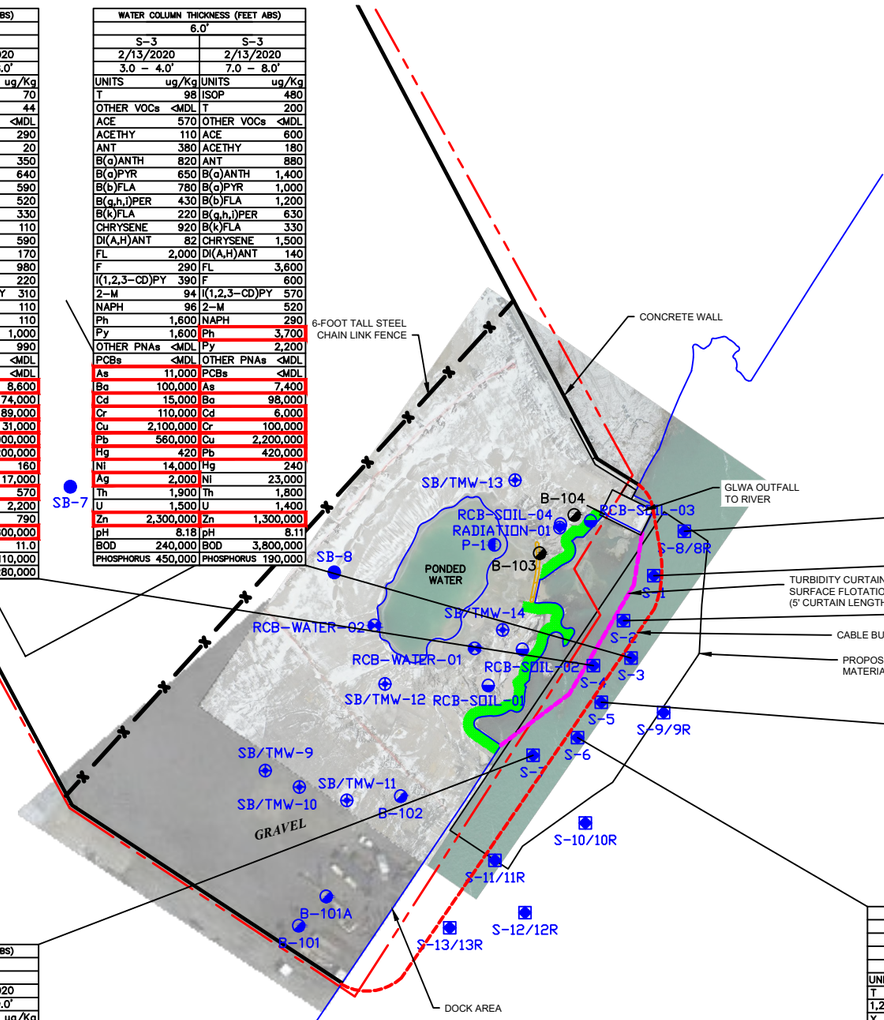
WATER COLUMN THICKNESS (FEET ABS)			
12.0'			
S-4		S-4	
2/13/2020		2/13/2020	
2.0 – 3.0'		7.0 – 8.0'	
UNITS	ug/Kg	UNITS	ug/Kg
T	89	T	70
1,2,4-TMB	69	1,2,4-TMB	44
OTHER VOCs	<MDL	OTHER VOCs	<MDL
ACE	1,600	ACE	290
ACETHY	82	ACETHY	20
ANT	1,200	ANT	350
B(a)ANTH	1,200	B(a)ANTH	640
B(a)PYR	780	B(a)PYR	590
B(b)FLA	730	B(b)FLA	520
B(g,h,i)PER	320	B(g,h,i)PER	330
B(k)FLA	210	B(k)FLA	110
CHRYSENE	1,000	CHRYSENE	590
DI(A,H)ANT	130	DI(A,H)ANT	170
FL	2,300	FL	980
F	890	F	220
I(1,2,3-CD)PY	350	I(1,2,3-CD)PY	310
2-M	400	2-M	110
NAPH	300	NAPH	110
Ph	3,300	Ph	1,000
Py	2,400	Py	990
OTHER PNAs	<MDL	OTHER PNAs	<MDL
PCBs	<MDL	PCBs	<MDL
As	23,000	As	8,600
Ba	80,000	Ba	74,000
Cd	200,000	Cd	89,000
Cr	91,000	Cr	31,000
Cu	4,800,000	Cu	5,000,000
Pb	380,000	Pb	1,200,000
Hg	670	Hg	160
Ni	15,000	Ni	17,000
Se	1,300	Se	570
Ag	2,100	Th	2,200
Th	2,400	U	790
U	910	Zn	2,800,000
Zn	5,300,000	pH	11.0
pH	10.6	BOD	110,000
BOD	140,000	PHOSPHORUS	280,000
PHOSPHORUS	480,000		

WATER COLUMN THICKNESS (FEET ABS)			
6.0'			
S-3		S-3	
2/13/2020		2/13/2020	
3.0 – 4.0'		7.0 – 8.0'	
UNITS	ug/Kg	UNITS	ug/Kg
T	98	ISOP	480
OTHER VOCs	<MDL	T	200
ACE	570	OTHER VOCs	<MDL
ACETHY	110	ACE	600
ANT	380	ACETHY	180
B(a)ANTH	820	ANT	880
B(a)PYR	650	B(a)ANTH	1,400
B(b)FLA	780	B(a)PYR	1,000
B(g,h,i)PER	430	B(b)FLA	1,200
B(k)FLA	220	B(g,h,i)PER	630
CHRYSENE	920	B(k)FLA	330
DI(A,H)ANT	82	CHRYSENE	1,500
FL	2,000	DI(A,H)ANT	140
F	290	FL	3,600
I(1,2,3-CD)PY	390	F	600
2-M	94	I(1,2,3-CD)PY	570
NAPH	96	2-M	520
Ph	1,600	NAPH	290
Py	1,600	Ph	3,700
OTHER PNAs	<MDL	Py	2,200
PCBs	<MDL	OTHER PNAs	<MDL
As	11,000	PCBs	<MDL
Ba	100,000	As	7,400
Cd	15,000	Ba	98,000
Cr	110,000	Cd	6,000
Cu	2,100,000	Cr	100,000
Pb	560,000	Cu	2,200,000
Hg	420	Pb	420,000
Ni	14,000	Hg	240
Ag	2,000	Ni	23,000
Th	1,900	Th	1,800
U	1,500	U	1,400
Zn	2,300,000	Zn	1,300,000
pH	8.18	pH	8.11
BOD	240,000	BOD	3,800,000
PHOSPHORUS	450,000	PHOSPHORUS	190,000

WATER COLUMN THICKNESS (FEET ABS)			
27.0'			
S-8		A-3	
2/12/2020		2/12/2020	
2.0 – 3.0'		2.0 – 3.0'	
UNITS	ug/Kg	UNITS	ug/Kg
VOCs	<MDL	VOCs	<MDL
ACE	170	ACE	83
ACETHY	130	ACETHY	17
ANT	210	ANT	33
B(a)ANTH	880	B(a)ANTH	42
B(a)PYR	610	B(a)PYR	27
B(b)FLA	600	B(b)FLA	24
B(g,h,i)PER	140	B(g,h,i)PER	6.1
B(k)FLA	180	B(k)FLA	8.3
CHRYSENE	760	CHRYSENE	37
DI(A,H)ANT	34	FL	110
FL	1,200	F	55
F	160	I(1,2,3-CD)PY	5.9
I(1,2,3-CD)PY	190	Ph	54
2-M	11	Py	100
Ph	180	OTHER PNAs	<MDL
Py	1,100	PCBs	<MDL
OTHER PNAs	<MDL	As	5,700
PCBs	<MDL	Ba	61,000
As	4,000	Cr	14,000
Ba	45,000	Cu	33,000
Cr	11,000	Pb	16,000
Cu	46,000	Hg	40
Pb	78,000	Ni	27,000
Hg	63	Th	3,900
Ni	14,000	U	1,200
Th	2,600	Zn	55,000
U	710	pH	8.71
Zn	62,000	BOD	6.4
pH	8.62	PHOSPHORUS	410,000
BOD	7.4		
PHOSPHORUS	630,000		

WATER COLUMN THICKNESS (FEET ABS)			
25.0'			
S-1			
2/12/2020			
4.0 – 5.0'			
UNITS	ug/Kg		
VOCs	<MDL		
ACE	370		
ACETHY	130		
ANT	3,100		
B(a)ANTH	1,800		
B(a)PYR	1,200		
B(b)FLA	1,600		
B(g,h,i)PER	380		
B(k)FLA	470		
CHRYSENE	1,500		
DI(A,H)ANT	71		
FL	7,900		
F	570		
I(1,2,3-CD)PY	580		
2-M	54		
NAPH	200		
Ph	6,100		
Py	4,000		
OTHER PNAs	<MDL		
PCBs	<MDL		
As	6,800		
Ba	68,000		
Cd	510		
Cr	22,000		
Cu	290,000		
Pb	67,000		
Hg	38		
Ni	21,000		
Th	3,500		
U	1,300		
Zn	290,000		
pH	8.63		
BOD	8		
PHOSPHORUS	270,000		

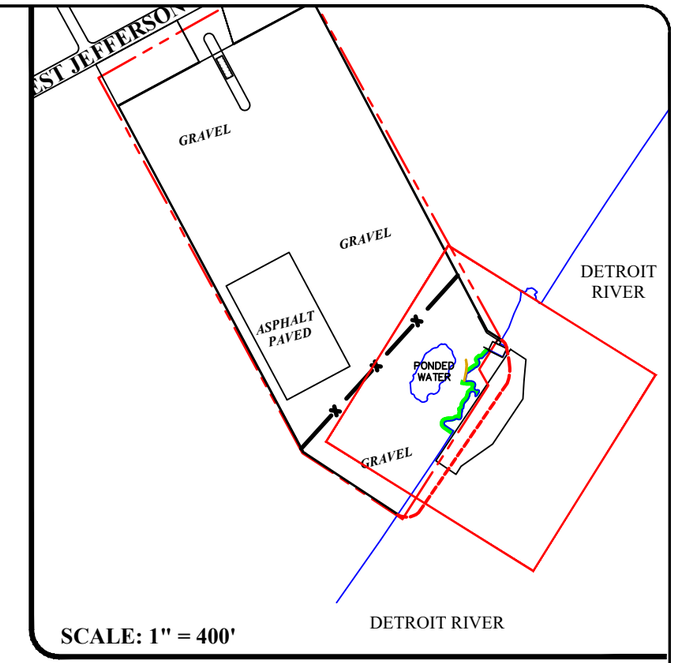
WATER COLUMN THICKNESS (FEET ABS)	
12.0 – 15.0'	
S-2	
2/12/2020	
5.0 – 7.0'	
UNITS	ug/Kg
E	48
T	180
1,2,4-TMB	64
OTHER VOCs	<MDL
ACE	74
ANT	33
B(a)ANTH	27
B(a)PYR	17
B(b)FLA	21
B(g,h,i)PER	8.8
B(k)FLA	7.1
CHRYSENE	33
FL	99
F	42
I(1,2,3-CD)PY	6.8
2-M	100
NAPH	250
Ph	170
Py	68
OTHER PNAs	<MDL
PCBs	<MDL
As	6,800
Ba	100,000
Cd	6,900
Cr	30,000
Cu	1,600,000
Pb	11,000
Hg	37
Ni	22,000
Th	5,600
U	960
Zn	1,400,000
pH	7.95
BOD	12
PHOSPHORUS	220,000



WATER COLUMN THICKNESS (FEET ABS)			
20.0'			
S-7		S-7	
2/13/2020		2/13/2020	
2.0 – 3.0'		8.0 – 9.0'	
UNITS	ug/Kg	UNITS	ug/Kg
VOCs	<MDL	VOCs	<MDL
ACE	170	ACE	600
ACETHY	6.0	ACETHY	24
ANT	24	ANT	580
B(a)ANTH	14	B(a)ANTH	260
B(a)PYR	6.6	B(a)PYR	140
B(b)FLA	6.4	B(b)FLA	170
CHRYSENE	9.4	B(g,h,i)PER	58
FL	40	B(k)FLA	59
F	65	CHRYSENE	230
Ph	110	DI(A,H)ANT	13
Py	43	FL	850
OTHER PNAs	<MDL	F	530
PCBs	<MDL	I(1,2,3-CD)PY	82
As	8,300	2-M	200
Ba	59,000	NAPH	230
Cd	660	Ph	2,100
Cr	320,000	Py	770
Cu	330,000	OTHER PNAs	<MDL
Pb	75,000	PCBs	<MDL
Hg	49	As	8,900
Ni	23,000	Ba	73,000
Se	470	Cd	1,500
Th	4,100	Cr	17,000
U	1,000	Cu	310,000
Zn	370,000	Pb	200,000
pH	8.01	Hg	1,600
BOD	71,000	Ni	22,000
PHOSPHORUS	320,000	Th	4,500
		U	1,000
		Zn	450,000
		pH	7.48
		BOD	<27,000
		PHOSPHORUS	2,700,000

WATER COLUMN THICKNESS (FEET ABS)					
10.0 – 20.0'					
S-6		A-6		S-6	
2/13/2020		2/13/2020		2/13/2020	
3.0 – 4.0'		3.0 – 4.0'		8.0 – 9.0'	
UNITS	ug/Kg	UNITS	ug/Kg	UNITS	ug/Kg
T	180	T	110	VOCs	<MDL
1,2,4-TMB	89	1,2,4-TMB	56	ANT	11
X	240	OTHER VOCs	<MDL	B(a)ANTH	24
OTHER VOCs	<MDL	ACE	14	B(a)PYR	34
ACE	350	ANT	13	B(b)FLA	32
ANT	650	B(a)ANTH	17	B(g,h,i)PER	35
B(a)ANTH	820	B(a)PYR	13	B(k)FLA	11
B(a)PYR	580	B(b)FLA	14	CHRYSENE	34
B(b)FLA	900	B(g,h,i)PER	5.9	FL	39
B(g,h,i)PER	340	CHRYSENE	20	I(1,2,3-CD)PY	17
B(k)FLA	320	FL	36	Ph	36
CHRYSENE	890	F	9.5	Py	36
DI(A,H)ANT	70	I(1,2,3-CD)PY	6.2	OTHER PNAs	<MDL
FL	2,400	Ph	31	PCBs	<MDL
F	290	Py	31	As	6,600
I(1,2,3-CD)PY	430	OTHER PNAs	<MDL	Ba	82,000
2-M	270	PCBs	<MDL	Cd	1,300
NAPH	520	As	5,300	Cr	30,000
Ph	2,300	Ba	57,000	Cu	140,000
Py	1,500	Cd	7,100	Pb	23,000
OTHER PNAs	<MDL	Cr	19,000	Hg	51
PCBs	<MDL	Cu	1,000,000	Ni	20,000
As	8,500	Pb	130,000	Se	670
Ba	66,000	Hg	110	Th	4,300
Cd	13,000	Ni	10,000	U	1,500
Cr	20,000	Se	1,600	Zn	170,000
Cu	1,400,000	Th	1,800	pH	7.97
Pb	170,000	U	740	BOD	<26,000
Hg	100	Zn	840,000	PHOSPHORUS	390,000
Ni	17,000	pH	9.12		
Se	2,200	BOD	230,000		
Th	2,200	PHOSPHORUS	330,000		
U	870				
Zn	1,300,000				
pH	9.45				
BOD	250,000				
PHOSPHORUS	250,000				

WATER COLUMN THICKNESS (FEET ABS)			
12.0'			
S-5		S-5	
2/12/2020		2/12/2020	
2.0 – 3.0'		14.0 – 15.0'	
UNITS	ug/Kg	UNITS	ug/Kg
E	52	VOCs	<MDL
ISOP	46	ACE	280
T	150	ACETHY	330
1,2,4-TMB	98	ANT	930
X	380	B(a)ANTH	470
OTHER VOCs	<MDL	B(a)PYR	260
ACE	240	B(b)FLA	420
ACETHY	180	B(g,h,i)PER	110
ANT	1,000	B(k)FLA	110
B(a)ANTH	700	CHRYSENE	440
B(a)PYR	470	DI(A,H)ANT	22
B(b)FLA	760	FL	2,400
B(g,h,i)PER	220	F	1,100
B(k)FLA	180	I(1,2,3-CD)PY	130
CHRYSENE	690	2-M	690
DI(A,H)ANT	39	NAPH	460
FL	2,900	Ph	3,700
F	650	Py	1,200
I(1,2,3-CD)PY	260	OTHER PNAs	<MDL
2-M	150	PCBs	<MDL
NAPH	81	As	7,600
Ph	3,200	Ba	69,000
Py	1,400	Cd	7,300
OTHER PNAs	<MDL	Cr	28,000
PCBs	<MDL	Cu	1,700,000
As	4,900	Pb	210,000
Ba	86,000	Hg	70
Cd	11,000	Ni	17,000
Cr	17,000	Th	2,400
Cu	1,600,000	U	1,200
Pb	66,000	Zn	1,200,000
Hg	54	pH	11.1
Ni	14,000	BOD	7.8
Ag	630	PHOSPHORUS	<270,000
Th	3,600		
U	910		
Zn	680,000		
pH	9.69		
BOD	14		
PHOSPHORUS	250,000		



SCALE: 1" = 400'

LEGEND:

- SUBJECT PROPERTY
- TURBIDITY CURTAINS AND LINKED SURFACE FLOTATION BUOYS (5' CURTAIN LENGTH)
- CABLE BUOYS
- FENCE
- GRAVEL BERM
- EROSION CONTROL BLANKETING
- SOIL BORING
- SOIL BORING / TEMPORARY MONITORING WELL
- TETRA TECH SOIL SAMPLE LOCATION
- TETRA TECH WATER SAMPLE LOCATION
- TETRA TECH RADIATION MONITORING LOCATION
- DISCRETE SAMPLING LOCATION
- GEOTECHNICAL BORING
- GEOTECHNICAL BORING WITH INCLINOMETER
- SURFACE WATER SAMPLE

NOTE: ALL SAMPLE DEPTHS ARE BELOW RIVER BOTTOM DEPTH

SEE FIGURE 8 FOR ANALYTICAL LEGEND

ABS ABOVE RIVER BOTTOM SURFACE

* COMPOSITE SAMPLE

PM ENVIRONMENTAL | Environmental & Engineering Services

FIGURE 4

SAMPLING LOCATION MAP WITH RIVER BANK FAILURE MATERIAL ANALYTICAL RESULTS

PROJ: 5851 WEST JEFFERSON AVENUE DETROIT, MI

THIS IS NOT A LEGAL SURVEY

VERIFY SCALE 0 140'

IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRN BY: BP/ES | DATE: 3/18/2020

CHKD BY: AP/SZ | SCALE: 1" = 140'

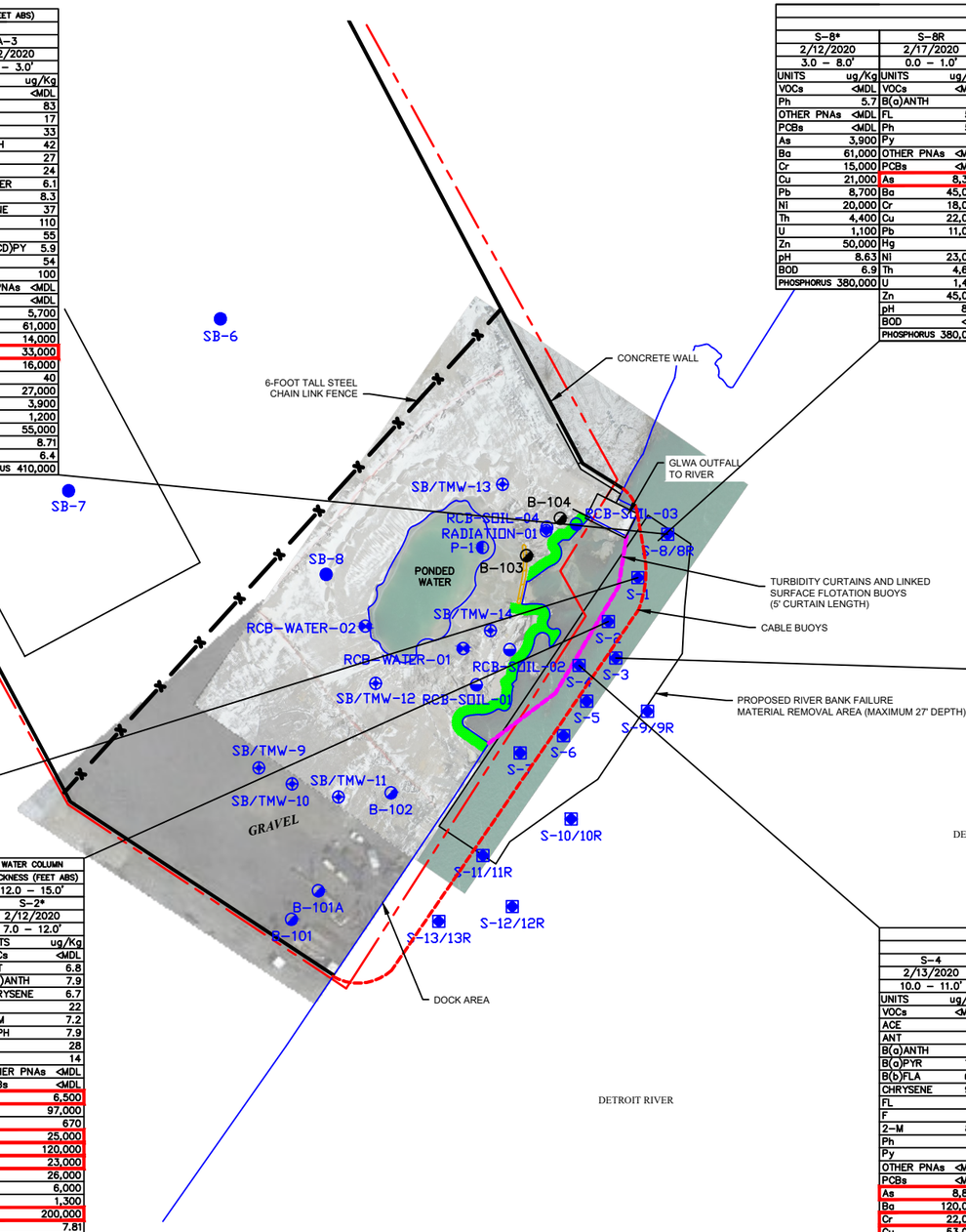
FILE NAME: 01-5303-3-001F00R01

WATER COLUMN THICKNESS (FEET ABS)	
27.0'	
S-8	A-3
2/12/2020	2/12/2020
2.0 – 3.0'	2.0 – 3.0'
UNITS ug/Kg	UNITS ug/Kg
VOCs <MDL	VOCs <MDL
ACE 170	ACE 83
ACETHY 130	ACETHY 17
ANT 210	ANT 33
B(a)ANTH 880	B(a)ANTH 42
B(a)PYR 610	B(a)PYR 27
B(b)FLA 600	B(b)FLA 24
B(g,h,i)PER 140	B(g,h,i)PER 6.1
B(k)FLA 180	B(k)FLA 8.3
CHRYSENE 760	CHRYSENE 37
DI(A,H)ANT 34	FL 110
FL 1,200	F 55
F 160	I(1,2,3-CD)PY 5.9
I(1,2,3-CD)PY 190	Ph 54
2-M 11	Py 100
Ph 180	OTHER PNAs <MDL
Py 1,100	PCBs <MDL
OTHER PNAs <MDL	As 5,700
PCBs <MDL	Ba 61,000
As 4,000	Cr 14,000
Ba 45,000	Cu 33,000
Cr 11,000	Pb 16,000
Cu 46,000	Hg 40
Pb 78,000	Ni 27,000
Hg 63	Th 3,900
Ni 14,000	U 1,200
Th 2,600	Zn 55,000
U 710	pH 8.71
Zn 62,000	BOD 6.4
pH 8.62	PHOSPHORUS 410,000
BOD 7.4	
PHOSPHORUS 630,000	

WATER COLUMN THICKNESS (FEET ABS)					
27.0'					
S-8*	S-8R	S-8R	S-8R	S-8R	S-8R
2/12/2020	2/17/2020	2/17/2020	2/17/2020	2/17/2020	2/17/2020
3.0 – 8.0'	0.0 – 1.0'	1.0 – 2.0'	2.0 – 3.0'	3.0 – 4.0'	4.0 – 5.0'
UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg
VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL
Ph 5.7	B(a)ANTH 5.1	PNAs <MDL	PNAs <MDL	FL 5.9	ACE 5.7
OTHER PNAs <MDL	FL 5.0	As 8,100	As 9,900	Ph 15	ANT 11
PCBs <MDL	Ph 5.0	Ba 84,000	Ba 130,000	OTHER PNAs <MDL	FL 9.3
As 3,900	Py 5.1	Cr 18,000	Cr 21,000	PCBs <MDL	F 11
Ba 61,000	OTHER PNAs <MDL	Cu 17,000	Cu 25,000	As 4,900	2-M 9.3
Cr 15,000	PCBs <MDL	Pb 9,900	Pb 10,000	Ba 87,000	Ph 35
Cu 21,000	As 8,300	Hg 21	Ni 25,000	Cr 17,000	Py 6.9
Pb 8,700	Ba 45,000	Ni 24,000	Th 5,500	Cu 48,000	OTHER PNAs <MDL
Ni 20,000	Cr 18,000	Th 5,200	U 1,300	Pb 10,000	PCBs <MDL
Th 4,400	Cu 22,000	U 1,300	Zn 45,000	Ni 23,000	As 6,300
U 1,100	Pb 11,000	Zn 41,000	pH 8.61	Th 4,800	Ba 66,000
Zn 50,000	Hg 87	pH 8.65	BOD 39	U 1,400	Cr 14,000
pH 8.63	Ni 23,000	BOD <26	PHOSPHORUS 450,000	Zn 43,000	Cu 18,000
BOD 6.9	Th 4,600	PHOSPHORUS 450,000		pH 8.68	Pb 9,700
PHOSPHORUS 380,000	U 1,400			BOD 63	Ni 25,000
	Zn 45,000			PHOSPHORUS 490,000	Th 4,100
	pH 8.61				U 1,700
	BOD <24				Zn 40,000
	PHOSPHORUS 380,000				pH 8.54
					BOD <2.4
					PHOSPHORUS 450,000

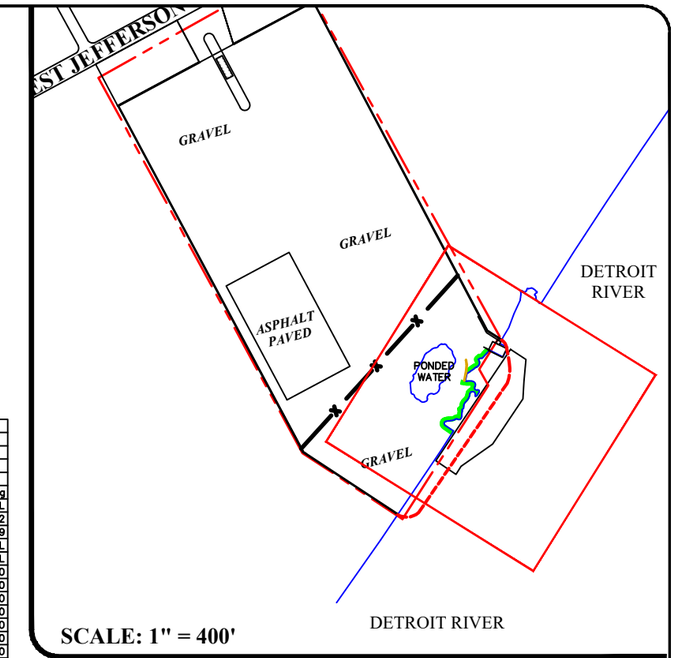
WATER COLUMN THICKNESS (FEET ABS)					
6.0'					
S-3	S-3	S-3	S-3	S-3	
2/13/2020	2/13/2020	2/13/2020	2/13/2020	2/13/2020	
10.0 – 11.0'	11.0 – 12.0'	12.0 – 13.0'	13.0 – 14.0'	14.0 – 15.0'	
UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	
VOCs <MDL	E 98	E 210	VOCs <MDL	VOCs <MDL	
PNAs <MDL	ISOP 69	T 250	ACE 16	FL 22	
PCBs <MDL	T 84	OTHER VOCs <MDL	ANT 6.3	Ph 49	
As 4,600	OTHER VOCs <MDL	ACE 18	FL 12	OTHER PNAs <MDL	
Ba 88,000	ACE 12	ANT 9.3	F 6.8	PCBs <MDL	
Cr 19,000	ANT 6.7	FL 15	2-M 8.0	As 5,200	
Cu 35,000	FL 11	F 9.9	NAPH 11	Ba 80,000	
Pb 14,000	F 6.5	2-M 13	Ph 29	Cr 17,000	
Ni 24,000	2-M 9.5	NAPH 33	Py 9.1	Cu 16,000	
Th 5,000	NAPH 7.7	Ph 39	OTHER PNAs <MDL	Pb 11,000	
U 1,200	Ph 27	Py 13	PCBs <MDL	Ni 23,000	
Zn 71,000	Py 9.3	OTHER PNAs <MDL	As 6,800	Th 4,900	
pH 8.37	OTHER PNAs <MDL	PCBs <MDL	Ba 81,000	U 1,300	
BOD 37,000	PCBs <MDL	As 7,800	Cr 20,000	Zn 42,000	
PHOSPHORUS 420,000	As 6,700	Ba 100,000	Cu 23,000	pH 8.17	
	Ba 100,000	Cr 23,000	Pb 14,000	BOD 30,000	
	Cr 24,000	Cu 31,000	Ni 27,000	PHOSPHORUS 390,000	
	Cu 28,000	Pb 18,000	Th 5,100		
	Pb 15,000	Ni 32,000	U 1,400		
	Hg 25	Th 6,000	Zn 50,000		
	Ni 31,000	U 1,800	pH 8.03		
	Th 5,800	Zn 57,000	BOD 35,000		
	U 1,400	pH 8.14	PHOSPHORUS 310,000		
	Zn 57,000	BOD 28,000			
	pH 8.27	PHOSPHORUS 360,000			
	BOD 43,000				
	PHOSPHORUS 350,000				

WATER COLUMN THICKNESS (FEET ABS)					
6.0'					
S-4	S-4	S-4	S-4	S-4	
2/13/2020	2/13/2020	2/13/2020	2/13/2020	2/13/2020	
10.0 – 11.0'	11.0 – 12.0'	12.0 – 13.0'	13.0 – 14.0'	14.0 – 15.0'	
UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	
VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL	
ACE 56	ACE 64	FL 5.4	ACE 23	ACE 25	
ANT 14	ANT 60	Ph 6.1	ANT 18	ANT 5.9	
B(a)ANTH 15	B(a)ANTH 55	OTHER PNAs <MDL	B(a)ANTH 12	FL 9.5	
B(a)PYR 7.6	B(a)PYR 35	PCBs <MDL	B(a)PYR 7.1	F 12	
B(b)FLA 6.4	B(b)FLA 38	As 10,000	B(b)FLA 8.9	Ph 21	
CHRYSENE 9.0	B(g,h,i)PER 12	Ba 120,000	B(g,h,i)PER 5.4	Py 10	
FL 25	B(k)FLA 13	Cr 22,000	CHRYSENE 9.8	OTHER PNAs <MDL	
F 14	CHRYSENE 51	Cu 44,000	FL 29	PCBs <MDL	
2-M 8.6	FL 110	Pb 18,000	F 13	As 55,000	
Ph 42	F 37	Hg 47	Ph 49	Ba 110,000	
Py 29	I(1,2,3-CD)PY 14	Ni 28,000	Py 34	Cr 24,000	
OTHER PNAs <MDL	2-M 14	Th 6,100	OTHER PNAs <MDL	Cu 64,000	
PCBs <MDL	NAPH 6.0	U 1,100	PCBs <MDL	Pb 30,000	
As 8,800	Ph 170	Zn 74,000	As 9,200	Hg 110	
Ba 120,000	Py 130	pH 8.14	Ba 160,000	Ni 33,000	
Cr 22,000	OTHER PNAs <MDL	BOD <6,300	Cr 24,000	Th 6,500	
Cu 53,000	PCBs <MDL	PHOSPHORUS 270,000	Cu 53,000	U 1,200	
Pb 17,000	As 7,400		Pb 17,000	Zn 120,000	
Hg 63	Ba 140,000		Ni 30,000	pH 7.97	
Ni 27,000	Cr 22,000		Se 520	BOD <6,400	
Th 6,400	Cu 25,000		Th 6,900	PHOSPHORUS 460,000	
U 1,100	Pb 12,000		U 1,300		
Zn 79,000	Hg 620		Zn 91,000		
pH 10.6	Ni 29,000		pH 8.02		
BOD 140,000	Se 450		BOD <6,200		
PHOSPHORUS 480,000	Th 6,800		PHOSPHORUS 380,000		
	U 1,600				
	Zn 55,000				
	pH 7.95				
	BOD <6,300				
	PHOSPHORUS 310,000				



WATER COLUMN THICKNESS (FEET ABS)
25.0'
S-1*
2/12/2020
5.0 – 10.0'
UNITS ug/Kg
VOCs <MDL
ANT 6.6
FL 8.0
Ph 11
OTHER PNAs <MDL
PCBs <MDL
As 5,800
Ba 36,000
Cr 10,000
Cu 13,000
Pb 6,900
Ni 17,000
Th 3,100
U 1,200
Zn 46,000
pH 8.65
BOD 6.7
PHOSPHORUS 320,000

WATER COLUMN THICKNESS (FEET ABS)
12.0 – 15.0'
S-2*
2/12/2020
7.0 – 12.0'
UNITS ug/Kg
VOCs <MDL
ANT 6.8
B(a)ANTH 7.9
CHRYSENE 6.7
FL 22
2-M 7.2
NAPH 7.9
Ph 28
Py 14
OTHER PNAs <MDL
PCBs <MDL
As 6,500
Ba 97,000
Cd 670
Cr 25,000
Cu 120,000
Pb 23,000
Ni 26,000
Th 6,000
U 1,300
Zn 200,000
pH 7.81
BOD 7
PHOSPHORUS 380,000



LEGEND:

- SUBJECT PROPERTY
- TURBIDITY CURTAINS AND LINKED SURFACE FLOTATION BUOYS (5' CURTAIN LENGTH)
- CABLE BUOYS
- FENCE
- GRAVEL BERM
- EROSION CONTROL BLANKETING
- SOIL BORING
- SOIL BORING / TEMPORARY MONITORING WELL
- TETRA TECH SOIL SAMPLE LOCATION
- TETRA TECH WATER SAMPLE LOCATION
- TETRA TECH RADIATION MONITORING LOCATION
- DISCRETE SAMPLING LOCATION
- GEOTECHNICAL BORING
- GEOTECHNICAL BORING WITH INCLINOMETER
- SURFACE WATER SAMPLE

NOTE: ALL SAMPLE DEPTHS ARE BELOW RIVER BOTTOM DEPTH

SEE FIGURE 8 FOR ANALYTICAL LEGEND

ABS ABOVE RIVER BOTTOM SURFACE

* COMPOSITE SAMPLE

PM ENVIRONMENTAL | Environmental & Engineering Services

FIGURE 5A

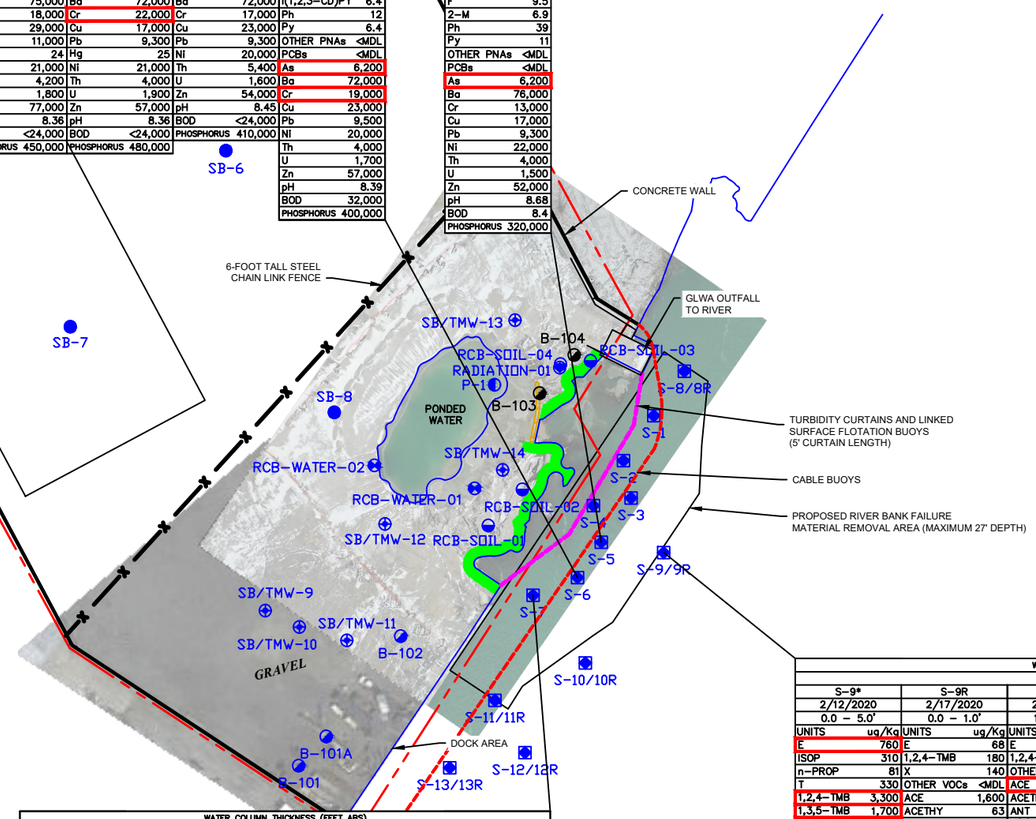
SAMPLING LOCATION MAP WITH RIVER SEDIMENT ANALYTICAL RESULTS - NORTHERN RIVER BANK FAILURE AREA

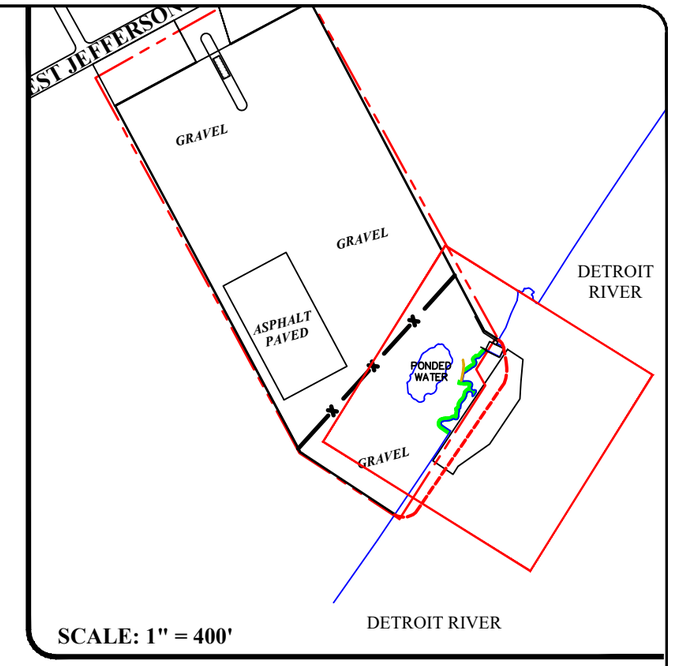
PROJ: 5851 WEST JEFFERSON AVENUE DETROIT, MI

THIS IS NOT A LEGAL SURVEY	DRN BY: BP/ES	DATE: 3/18/2020
VERIFY SCALE 0 140' IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	CHKD BY: AP/SZ	SCALE: 1" = 140'
	FILE NAME: 01-5303-3-001F00R01	

	WATER COLUMN THICKNESS (FEET ABS)			
	10.0 – 12.0'			
S–6	S–6	S–6	S–6	S–6
2/13/2020	2/13/2020	2/13/2020	2/13/2020	2/13/2020
12.0 – 13.0'	13.0 – 14.0'	14.0 – 15.0'	15.0 – 16.0'	16.0 – 17.0'
UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg
VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL
Ph 12	Ph 9.2	Ph 12	Ph 9.9	B(g)ANTH 6.1
OTHER PNAs <MDL	OTHER PNAs <MDL	OTHER PNAs <MDL	OTHER PNAs <MDL	B(b)FLA 7.4
PCBs <MDL	PCBs <MDL	PCBs <MDL	PCBs <MDL	B(g,h,i)PER 8.1
As 5,700	As 6,800	As 7,400	As 6,200	FL 4.9
Ba 70,000	Ba 75,000	Ba 72,000	Ba 72,000	I(1,2,3–CD)PY 6.4
Cr 17,000	Cr 18,000	Cr 22,000	Cr 17,000	Ph 12
Cu 23,000	Cu 29,000	Cu 17,000	Cu 23,000	Py 6.4
Pb 9,400	Pb 11,000	Pb 9,300	Pb 9,300	OTHER PNAs <MDL
Hg 27	Hg 24	Hg 25	Ni 20,000	PCBs <MDL
Ni 19,000	Ni 21,000	Ni 21,000	Th 5,400	As 6,200
Th 3,800	Th 4,200	Th 4,000	U 1,600	Ba 72,000
U 1,500	U 1,800	U 1,900	Zn 54,000	Cr 19,000
Zn 66,000	Zn 77,000	Zn 57,000	pH 8.45	Cu 23,000
pH 8.30	pH 8.36	pH 8.36	BOD <24,000	Pb 9,500
BOD 26,000	BOD <24,000	BOD <24,000	PHOSPHORUS 410,000	Ni 20,000
PHOSPHORUS 450,000	PHOSPHORUS 450,000	PHOSPHORUS 480,000		Th 4,000
				U 1,700
				Zn 57,000
				pH 8.39
				BOD 32,000
				PHOSPHORUS 400,000

WATER COLUMN THICKNESS (FEET ABS)
12.0'
S–5*
2/12/2020
17.0 – 22.0'
UNITS ug/Kg
VOCs <MDL
ANT 12
B(a)ANTH 7.1
FL 18
F 9.5
2–M 6.9
Ph 39
Py 11
OTHER PNAs <MDL
PCBs <MDL
As 6,200
Ba 76,000
Cr 13,000
Cu 17,000
Pb 9,300
Ni 22,000
Th 4,000
U 1,500
Zn 52,000
pH 8.68
BOD 8.4
PHOSPHORUS 320,000





WATER COLUMN THICKNESS (FEET ABS)					
33.0'					
S–9*	S–9R	S–9R	S–9R	S–9R	S–9R
2/12/2020	2/17/2020	2/17/2020	2/17/2020	2/17/2020	2/17/2020
0.0 – 5.0'	0.0 – 1.0'	1.0 – 2.0'	2.0 – 3.0'	3.0 – 4.0'	4.0 – 5.0'
UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg
E 760	E 68	E 48	1,2,4–TMB 130	E 50	1,2,4–TMB 150
ISOP 310	1,2,4–TMB 180	1,2,4–TMB 130	OTHER VOCs <MDL	1,2,4–TMB 150	OTHER VOCs <MDL
n–PROP 81	X 140	OTHER VOCs <MDL	ACE 2,800	OTHER VOCs <MDL	ACE 5,800
T 330	OTHER VOCs <MDL	ACE 9,700	ACETHY 130	ACE 1,500	ACETHY 290
1,2,4–TMB 3,300	ACE 1,600	ACETHY 450	ANT 1,700	ACETHY 53	ANT 3,400
1,3,5–TMB 1,700	ACETHY 63	ANT 5,800	B(a)ANTH 800	ANT 690	B(a)ANTH 1,900
X 2,800	ANT 760	B(a)ANTH 3,200	B(a)PYR 460	B(a)ANTH 310	B(a)PYR 1,100
OTHER VOCs <MDL	B(a)ANTH 320	B(a)PYR 1,800	B(b)FLA 470	B(a)PYR 160	B(b)FLA 1,100
ACE 55,000	B(a)PYR 170	B(b)FLA 1,800	B(g,h,i)PER 130	B(b)FLA 180	B(g,h,i)PER 310
ACETHY 4,300	B(b)FLA 180	B(g,h,i)PER 490	B(k)FLA 190	B(g,h,i)PER 49	B(k)FLA 440
ANT 47,000	B(g,h,i)PER 48	B(k)FLA 640	CHRYSENE 640	B(k)FLA 69	CHRYSENE 1,400
B(a)ANTH 20,000	B(k)FLA 73	CHRYSENE 2,400	DI(A,H)ANT 30	CHRYSENE 240	DI(A,H)ANT 85
B(a)PYR 9,900	CHRYSENE 260	DI(A,H)ANT 120	FL 2,200	DI(A,H)ANT 16	FL 5,100
B(b)FLA 13,000	DI(A,H)ANT 11	FL 7,800	F 2,100	FL 1,000	F 5,100
B(g,h,i)PER 1,900	FL 990	F 7,800	I(1,2,3–CD)PY 180	F 1,100	I(1,2,3–CD)PY 470
B(k)FLA 2,700	F 1,300	I(1,2,3–CD)PY 690	2–M 3,600	I(1,2,3–CD)PY 69	2–M 6,700
CHRYSENE 16,000	I(1,2,3–CD)PY 64	2–M 13,000	NAPH 7,200	2–M 1,600	NAPH 18,000
DI(A,H)ANT 690	2–M 2,000	NAPH 23,000	Ph 6,100	NAPH 4,100	Ph 15,000
FL 58,000	NAPH 4,500	Ph 22,000	Py 2,200	Ph 2,800	Py 4,600
F 52,000	Ph 3,100	Py 7,900	OTHER PNAs <MDL	Py 970	OTHER PNAs <MDL
I(1,2,3–CD)PY 2,900	Py 900	OTHER PNAs <MDL	PCBs <MDL	OTHER PNAs <MDL	PCBs <MDL
2–M 76,000	OTHER PNAs <MDL	PCBs <MDL	As 7,200	PCBs <MDL	As 6,800
NAPH 210,000	PCBs <MDL	As 7,200	Ba 67,000	As 6,500	Ba 71,000
Ph 130,000	As 640,000	Ba 67,000	Cr 14,000	Ba 110,000	Cd 190
Py 43,000	Ba 68,000	Cr 15,000	Cu 39,000	Cr 24,000	Cr 17,000
OTHER PNAs <MDL	Cd 510	Cu 27,000	Pb 17,000	Cu 33,000	Cu 40,000
PCBs <MDL	Cr 24,000	Pb 15,000	Hg 23	Pb 810,000	Pb 49,000
As 8,400	Cu 4,600,000	Hg 42	Ni 21,000	Hg 24	Hg 70
Ba 83,000	Pb 44,000	Ni 27,000	Th 3,500	Ni 30,000	Ni 28,000
Cd 590	Hg 80	Th 4,300	U 1,400	Th 4,400	Se 450
Cr 34,000	Ni 28,000	U 1,800	Zn 84,000	U 1,600	Th 4,300
Cu 160,000	Se 790	Zn 77,000	pH 8.41	Zn 78,000	U 2,100
Pb 150,000	Ag 4,100	pH 8.53	BOD 240	pH 8.45	Zn 87,000
Hg 410	Th 6,500	BOD 28	PHOSPHORUS 420,000	BOD 100	pH 8.40
Ni 24,000	U 1,500	PHOSPHORUS 370,000		PHOSPHORUS 390,000	BOD 280
Th 2,900	Zn 420,000				PHOSPHORUS 310,000
U 1,100	pH 8.53				
Zn 180,000	BOD 68				
pH 8.10	PHOSPHORUS 460,000				
BOD 31					
PHOSPHORUS 500,000					

WATER COLUMN THICKNESS (FEET ABS)				
20.0'				
S–7	S–7	S–7	S–7	S–7
2/13/2020	2/13/2020	2/13/2020	2/13/2020	2/13/2020
10.0 – 11.0'	11.0 – 12.0'	12.0 – 13.0'	13.0 – 14.0'	14.0 – 15.0'
UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg
VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL
ACE 120	ACE 120	ACE 15	Ph 15	ACE 27
ACETHY 7.1	ANT 130	ANT 19	OTHER PNAs <MDL	ANT 25
ANT 150	B(a)ANTH 55	B(a)ANTH 7.5	PCBs <MDL	B(a)ANTH 13
B(a)ANTH 90	B(a)PYR 34	CHRYSENE 5.2	As 6,500	B(a)PYR 7.2
B(a)PYR 52	B(b)FLA 34	FL 22	Ba 71,000	B(b)FLA 5.3
B(b)FLA 57	B(g,h,i)PER 19	F 12	Cr 13,000	CHRYSENE 8.0
B(g,h,i)PER 22	B(k)FLA 12	2–M 6.9	Cu 25,000	FL 34
B(k)FLA 21	CHRYSENE 56	Ph 61	Pb 10,000	F 18
CHRYSENE 87	FL 180	Py 23	Hg 27	2–M 6.8
FL 240	F 98	OTHER PNAs <MDL	Ni 21,000	Ph 90
F 93	I(1,2,3–CD)PY 16	PCBs <MDL	Th 4,000	Py 35
I(1,2,3–CD)PY 25	2–M 11	As 6,200	U 1,600	OTHER PNAs <MDL
2–M 15	NAPH 5.4	Ba 74,000	Zn 53,000	PCBs <MDL
NAPH 7.1	Ph 430	Cr 13,000	pH 8.19	As 5,700
Ph 480	Py 170	Cu 23,000	BOD <24,000	Ba 63,000
Py 250	OTHER PNAs <MDL	Pb 9,700	PHOSPHORUS 410,000	Cr 11,000
OTHER PNAs <MDL	PCBs <MDL	Ni 21,000		Cu 38,000
PCBs <MDL	As 6,200	Th 4,100		Pb 8,700
As 6,700	Ba 72,000	U 1,600		Hg 24
Ba 72,000	Cr 13,000	Zn 60,000		Ni 18,000
Cd 260	Cu 26,000	pH 8.26		Th 3,600
Cr 14,000	Pb 14,000	BOD <24,000		U 1,500
Cu 47,000	Hg 68	PHOSPHORUS 400,000		Zn 59,000
Pb 22,000	Ni 20,000			pH 8.17
Hg 43	Th 4,000			BOD <24,000
Ni 21,000	U 1,700			PHOSPHORUS 380,000
Th 4,000	Zn 66,000			
U 1,600	pH 8.19			
Zn 140,000	BOD <24,000			
pH 8.12	PHOSPHORUS 380,000			
BOD <24,000				
PHOSPHORUS 350,000				

LEGEND:

- SUBJECT PROPERTY
- TURBIDITY CURTAINS AND LINKED SURFACE FLOTATION BUOYS (5' CURTAIN LENGTH)
- CABLE BUOYS
- FENCE
- GRAVEL BERM
- EROSION CONTROL BLANKETING
- SOIL BORING
- SOIL BORING / TEMPORARY MONITORING WELL
- TETRA TECH SOIL SAMPLE LOCATION
- TETRA TECH WATER SAMPLE LOCATION
- TETRA TECH RADIATION MONITORING LOCATION
- DISCRETE SAMPLING LOCATION
- GEOTECHNICAL BORING
- GEOTECHNICAL BORING WITH INCLINOMETER
- SURFACE WATER SAMPLE

NOTE: ALL SAMPLE DEPTHS ARE BELOW RIVER BOTTOM DEPTH

SEE FIGURE 8 FOR ANALYTICAL LEGEND

ABS ABOVE RIVER BOTTOM SURFACE

* COMPOSITE SAMPLE

PM ENVIRONMENTAL | Environmental & Engineering Services

FIGURE 5B

SAMPLING LOCATION MAP WITH RIVER
SEDIMENT ANALYTICAL RESULTS - SOUTHERN
RIVER BANK FAILURE AREA

PROJ: 5851 WEST JEFFERSON AVENUE
DETROIT, MI

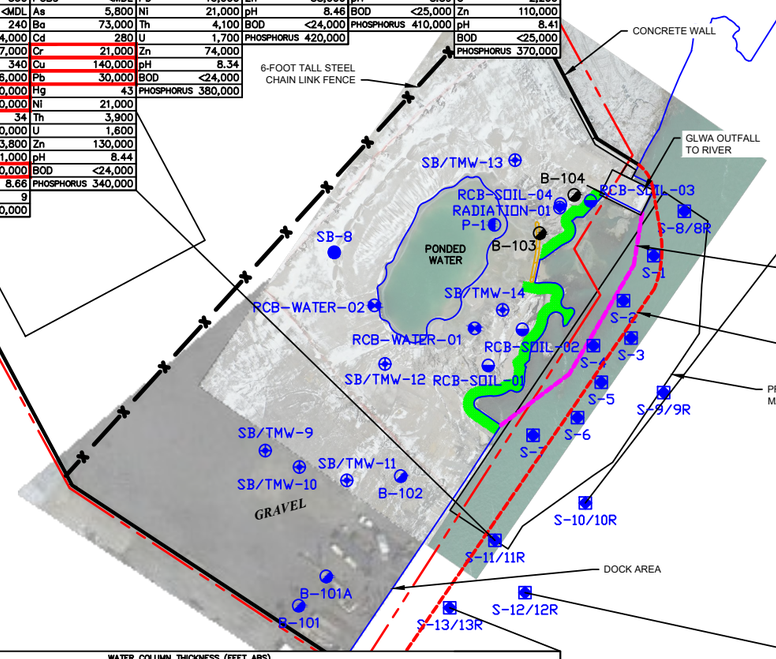
THIS IS NOT A LEGAL SURVEY

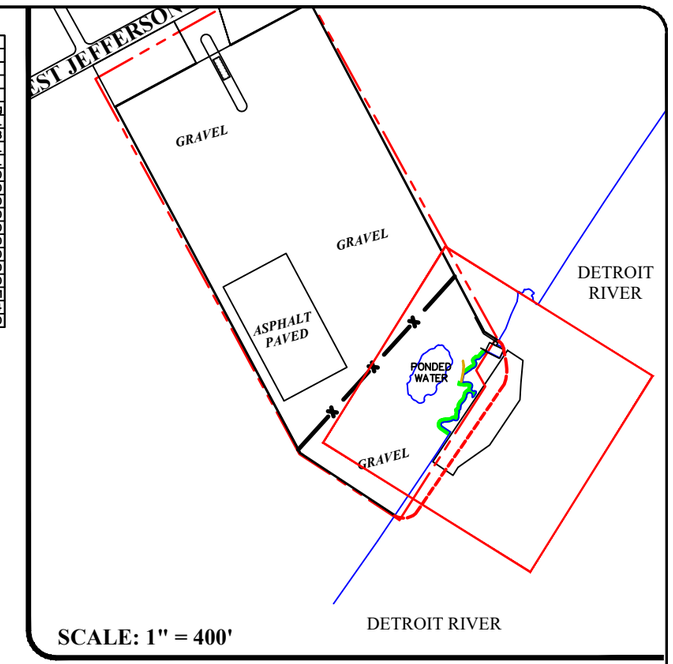
VERIFY SCALE 0 140'
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRN BY: BP/ES
DATE: 3/18/2020
CHKD BY: AP/SZ
SCALE: 1" = 140'
FILE NAME: 01–5303–3–001F00R01

WATER COLUMN THICKNESS (FEET ABS)						
30.0'						
S-11*	S-11	S-11R	S-11R	S-11R	S-11R	S-11R
2/11/2020	2/11/2020	2/11/2020	2/11/2020	2/11/2020	2/11/2020	2/11/2020
0.0 – 5.0'	5.0 – 10.0'	5.0 – 6.0'	6.0 – 7.0'	7.0 – 8.0'	8.0 – 9.0'	9.0 – 10.0'
UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg
VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL
ACE 25	ACE 150	ACE 42	ACE 8.1	ANT 6.8	ANT 7.4	ANT 6.5
ANT 29	ACETHY 17	ANT 36	ANT 8.7	B(a)ANTH 6.2	B(a)ANTH 5.8	B(a)ANTH 11
B(a)ANTH 42	ANT 250	B(a)ANTH 33	B(a)ANTH 11	FL 12	FL 15	FL 50
B(a)PYR 29	B(a)ANTH 260	B(a)PYR 23	B(a)PYR 6.5	F 5.2	Ph 23	Ph 21
B(b)FLA 36	B(a)PYR 190	B(b)FLA 25	B(b)FLA 5.4	Ph 32	Py 14	Py 10
B(g,h,i)PER 7.9	B(b)FLA 330	B(g,h,i)PER 8.2	CHRYSENE 7.7	Py 11	OTHER PNAs <MDL	OTHER PNAs <MDL
B(k)FLA 11	B(g,h,i)PER 110	B(k)FLA 7.2	FL 24	OTHER PNAs <MDL	PCBs <MDL	PCBs <MDL
CHRYSENE 37	B(k)FLA 98	CHRYSENE 31	F 7.9	PCBs <MDL	As 6,900	As 7,800
FL 100	CHRYSENE 280	FL 79	Ph 40	As 6,100	Ba 74,000	Ba 76,000
F 18	DI(A,H)ANT 21	F 38	Py 24	Ba 75,000	Cr 19,000	Cd 550
I(1,2,3-CD)PY 8.4	FL 1,000	I(1,2,3-CD)PY 10	OTHER PNAs <MDL	Cr 18,000	Cu 57,000	Cr 20,000
Ph 48	F 140	2-M 25	PCBs <MDL	Cu 14,000	Pb 15,000	Cu 71,000
Py 71	I(1,2,3-CD)PY 120	NAPH 94	As 6,100	Pb 9,100	Ni 20,000	Pb 16,000
OTHER PNAs <MDL	2-M 99	Ph 150	Ba 75,000	Ni 21,000	Th 4,100	Hg 21
PCBs <MDL	NAPH 230	Py 71	Cr 21,000	Th 4,300	U 1,700	Ni 23,000
As 4,200	Ph 840	OTHER PNAs <MDL	Cu 43,000	U 1,600	Zn 74,000	Th 4,300
Ba 150,000	Py 560	PCBs <MDL	Pb 16,000	Zn 58,000	pH 8.39	U 2,200
Cd 270	OTHER PNAs <MDL	As 5,800	Ni 21,000	pH 8.46	BOD <25,000	Zn 110,000
Cr 40,000	PCBs 240	Ba 73,000	Th 4,100	BOD <24,000	PHOSPHORUS 410,000	pH 8.41
Cu 170,000	As 4,000	Cd 280	U 1,700	PHOSPHORUS 420,000		BOD <25,000
Pb 51,000	Ba 77,000	Cr 21,000	Zn 74,000			PHOSPHORUS 370,000
Hg 140	Cd 340	Cu 140,000	pH 8.34			
Ni 29,000	Cr 16,000	Pb 30,000	BOD <24,000			
Th 5,400	Cu 130,000	Hg 43	PHOSPHORUS 380,000			
U 840	Pb 120,000	Ni 21,000				
Zn 140,000	Hg 34	Th 3,900				
pH 8.57	Ni 20,000	U 1,600				
BOD 7.7	Th 3,800	Zn 130,000				
PHOSPHORUS 530,000	U 1,000	pH 8.44				
	Zn 220,000	BOD <24,000				
	pH 8.66	PHOSPHORUS 340,000				
	BOD 9					
	PHOSPHORUS 450,000					

WATER COLUMN THICKNESS (FEET ABS)						
33.0'						
S-10*	S-10R	A-8	S-10R	S-10R	S-10R	S-10R
2/11/2020	2/17/2020	2/17/2020	2/17/2020	2/17/2020	2/17/2020	2/17/2020
0.0 – 5.0'	0.0 – 1.0'	0.0 – 1.0'	1.0 – 2.0'	2.0 – 3.0'	3.0 – 4.0'	4.0 – 5.0'
UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg
VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL
ACE 1,000	ACE 230	ACE 160	ACE 130	ACE 37	ACE 8.1	Ph 18
ACETHY 85	ACETHY 22	ACETHY 34	ACETHY 5.7	ANT 25	ANT 8.1	OTHER PNAs <MDL
ANT 800	ANT 210	ANT 350	ANT 110	B(a)ANTH 48	B(a)ANTH 9.2	PCBs <MDL
B(a)ANTH 700	B(a)ANTH 210	B(a)ANTH 360	B(a)ANTH 68	B(a)PYR 30	B(a)PYR 5.5	As 5,700
B(a)PYR 350	B(a)PYR 110	B(a)PYR 200	B(a)PYR 38	B(b)FLA 32	CHRYSENE 8.7	Ba 67,000
B(b)FLA 450	B(b)FLA 130	B(b)FLA 210	B(b)FLA 36	B(g,h,i)PER 10	FL 15	Cr 14,000
B(g,h,i)PER 78	B(g,h,i)PER 35	B(g,h,i)PER 60	B(g,h,i)PER 12	B(k)FLA 14	F 7.9	Cu 19,000
B(k)FLA 140	B(k)FLA 50	B(k)FLA 83	B(k)FLA 15	CHRYSENE 43	2-M 11	Pb 9,500
CHRYSENE 570	CHRYSENE 170	CHRYSENE 290	CHRYSENE 50	FL 120	Ph 37	Ni 27,000
DI(A,H)ANT 22	DI(A,H)ANT 8.1	DI(A,H)ANT 13	FL 140	F 34	Py 18	Th 4,400
FL 2,400	FL 510	FL 820	F 110	I(1,2,3-CD)PY 12	OTHER PNAs <MDL	U 1,900
F 1,100	F 220	F 220	I(1,2,3-CD)PY 14	2-M 16	PCBs <MDL	Zn 44,000
I(1,2,3-CD)PY 110	I(1,2,3-CD)PY 50	I(1,2,3-CD)PY 76	2-M 120	NAPH 6.3	As 6,600	pH 8.21
2-M 590	2-M 230	2-M 46	NAPH 100	Ph 62	Ba 71,000	BOD <2.4
NAPH 500	NAPH 470	NAPH 120	Ph 340	Py 130	Cr 15,000	PHOSPHORUS 320,000
Ph 2,400	Ph 610	Ph 950	Py 160	OTHER PNAs <MDL	Cu 20,000	
Py 1,500	Py 470	Py 910	OTHER PNAs <MDL	PCBs <MDL	Pb 10,000	
OTHER PNAs <MDL	OTHER PNAs <MDL	OTHER PNAs <MDL	PCBs <MDL	As 6,900	Ni 28,000	
PCBs <MDL	PCBs <MDL	PCBs <MDL	As 6,600	Ba 73,000	Se 440	
As 14,000	As 6,000	As 5,100	Ba 66,000	Cr 15,000	Th 4,400	
Ba 79,000	Ba 70,000	Ba 61,000	Cr 15,000	Cu 20,000	U 1,900	
Cd 1,300	Cr 18,000	Cr 14,000	Cu 23,000	Pb 11,000	Zn 48,000	
Cr 31,000	Cu 37,000	Cu 25,000	Pb 13,000	Hg 93	pH 8.19	
Cu 130,000	Pb 43,000	Pb 12,000	Hg 34	Ni 27,000	BOD <2.4	
Pb 51,000	Hg 54	Hg 73	Ni 26,000	Th 4,400	PHOSPHORUS 320,000	
Hg 260	Ni 25,000	Ni 24,000	Th 4,200	U 1,900		
Ni 24,000	Th 4,000	Th 3,900	U 1,800	Zn 48,000		
Se 600	U 1,700	U 1,700	Zn 73,000	pH 8.34		
Th 3,200	Zn 55,000	Zn 42,000	pH 8.36	BOD 140		
U 1,500	pH 8.51	pH 8.43	BOD 150	PHOSPHORUS 320,000		
Zn 110,000	BOD 260	BOD 280	PHOSPHORUS 320,000			
pH 8.83	PHOSPHORUS 320,000	PHOSPHORUS 320,000				
BOD 9.1						
PHOSPHORUS 320,000						





SCALE: 1" = 400'

WATER COLUMN THICKNESS (FEET ABS)						
29.0'						
S-13*	S-13R	S-13R	A-7	S-13R	S-13R	S-13R
2/11/2020	2/13/2020	2/13/2020	2/13/2020	2/13/2020	2/13/2020	2/13/2020
0.0 – 5.0'	0.0 – 1.0'	1.0 – 2.0'	1.0 – 2.0'	2.0 – 3.0'	3.0 – 4.0'	4.0 – 5.0'
UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg
VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL
ACE 230	ACE 1,300	ACE 30	ACE 10	ACE 570	ACE 9.9	ANT 9.4
ACETHY 36	ACETHY 55	ANT 53	ANT 9.6	ACETHY 31	ANT 13	FL 16
ANT 200	ANT 960	B(a)ANTH 26	B(a)ANTH 7.1	ANT 290	B(a)ANTH 7.3	Ph 32
B(a)ANTH 290	B(a)ANTH 500	CHRYSENE 26	FL 11	B(a)ANTH 71	CHRYSENE 6.3	Py 13
B(a)PYR 200	B(a)PYR 260	FL 63	F 8.0	B(a)PYR 26	FL 20	OTHER PNAs <MDL
B(b)FLA 250	B(b)FLA 260	F 26	Ph 40	B(b)FLA 35	F 7.7	PCBs <MDL
B(g,h,i)PER 47	B(g,h,i)PER 85	Ph 110	Py 13	B(g,h,i)PER 8.3	Ph 41	As 6,100
B(k)FLA 60	B(k)FLA 100	Py 64	OTHER PNAs <MDL	B(k)FLA 18	Py 22	Ba 74,000
CHRYSENE 300	CHRYSENE 480	OTHER PNAs <MDL	PCBs <MDL	CHRYSENE 65	OTHER PNAs <MDL	Cr 14,000
DI(A,H)ANT 13	DI(A,H)ANT 20	PCBs <MDL	As 4,500	FL 250	PCBs <MDL	Cu 15,000
FL 570	FL 1,500	As 5,000	Ba 110,000	F 680	As 7,400	Pb 9,000
F 150	F 880	Ba 90,000	Cr 18,000	I(1,2,3-CD)PY 9.7	Ba 68,000	Ni 22,000
I(1,2,3-CD)PY 61	I(1,2,3-CD)PY 100	Cr 18,000	Cu 17,000	2-M 1,200	Cr 14,000	Th 3,900
2-M 53	2-M 20	Cu 26,000	Pb 11,000	NAPH 1,200	Cu 18,000	U 1,600
NAPH 59	Ph 2,900	Pb 11,000	Hg 47	Ph 1,100	Pb 10,000	Zn 51,000
Ph 480	Py 1,700	Ni 25,000	Ni 23,000	Py 170	Ni 23,000	pH 8.44
Py 460	OTHER PNAs <MDL	Th 4,900	Th 5,000	OTHER PNAs <MDL	Th 4,100	BOD 180,000
OTHER PNAs <MDL	PCBs <MDL	U 1,400	U 1,300	PCBs <MDL	U 1,900	PHOSPHORUS 390,000
PCBs <MDL	As 4,900	Zn 63,000	Zn 86,000	As 5,400	Zn 52,000	
As 5,900	Ba 96,000	pH 8.40	pH 8.31	Ba 65,000	pH 8.45	
Ba 43,000	Cd 650	BOD <26,000	BOD 48,000	Cr 14,000	BOD <24,000	
Cd 2,000	Cr 26,000	PHOSPHORUS 420,000	PHOSPHORUS 480,000	Cu 23,000	PHOSPHORUS 380,000	
Cr 30,000	Cu 280,000			Pb 15,000		
Cu 1,000,000	Pb 110,000			Ni 21,000		
Pb 150,000	Hg 440			Th 3,800		
Hg 97	Ni 25,000			U 1,600		
Ni 30,000	Th 4,500			Zn 50,000		
Th 3,000	U 1,100			pH 8.43		
U 1,300	Zn 390,000			BOD <24,000		
Zn 1,100,000	pH 8.13			PHOSPHORUS 360,000		
pH 8.57	BOD <28,000					
BOD 18	PHOSPHORUS 490,000					
PHOSPHORUS 450,000						

WATER COLUMN THICKNESS (FEET ABS)						
33.0'						
S-12*	S-12R	S-12R	A-9	S-12R	S-12R	S-12R
2/11/2020	2/17/2020	2/17/2020	2/17/2020	2/17/2020	2/17/2020	2/17/2020
0.0 – 5.0'	0.0 – 1.0'	1.0 – 2.0'	1.0 – 2.0'	2.0 – 3.0'	3.0 – 4.0'	4.0 – 5.0'
UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg
VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL
ACE 32	ACE 18	B(a)ANTH 6.3	Ph 11	Ph 18	Ph 7.7	Ph 11
ACETHY 5.2	ANT 29	B(b)FLA 6.3	OTHER PNAs <MDL	Py 5.2	OTHER PNAs <MDL	OTHER PNAs <MDL
ANT 18	B(a)ANTH 34	B(g,h,i)PER 6.4	PCBs <MDL	OTHER PNAs <MDL	PCBs <MDL	PCBs <MDL
B(a)ANTH 47	B(a)PYR 19	FL 5.8	As 3,800	PCBs <MDL	As 6,100	As 8,600
B(a)PYR 34	B(b)FLA 22	Ph 14	Ba 120,000	As 6,600	Ba 77,000	Ba 74,000
B(b)FLA 35	B(g,h,i)PER 6.3	Py 6.9	Cr 20,000	Ba 75,000	Cr 15,000	Cd 500
B(g,h,i)PER 8.8	B(k)FLA 6.6	OTHER PNAs <MDL	Cu 25,000	Cr 16,000	Cu 23,000	Cr 14,000
B(k)FLA 11	CHRYSENE 30	PCBs <MDL	Pb 12,000	Cu 18,000	Pb 13,000	Cu 70,000
CHRYSENE 41	FL 66	As 4,200	Hg 26	Pb 10,000	Ni 26,000	Pb 27,000
FL 120	F 17	Ba 110,000	Ni 31,000	Ni 28,000	Th 4,600	Ni 40,000
F 13	I(1,2,3-CD)PY 6.3	Cr 22,000	Th 5,400	Th 4,800	U 1,900	Se 590
I(1,2,3-CD)PY 10	Ph 62	Cu 20,000	U 1,300	U 2,100	Zn 46,000	Th 4,700
Ph 30	Py 76	Pb 11,000	Zn 69,000	Zn 51,000	pH 8.28	U 2,400
Py 97	OTHER PNAs <MDL	Ni 31,000	pH 8.64	pH 8.26	BOD <25	Zn 90,000
OTHER PNAs <MDL	PCBs <MDL	Th 5,900	BOD <27	BOD 85	PHOSPHORUS 400,000	pH 8.25
PCBs <MDL	As 7,200	U 1,400	PHOSPHORUS 470,000	PHOSPHORUS 450,000		BOD 55
As 6,700	Ba 68,000	Zn 54,000				PHOSPHORUS 430,000
Ba 63,000	Cr 16,000	pH 8.51				
Cr 25,000	Cu 47,000	BOD 88				
Cu 120,000	Pb 15,000	PHOSPHORUS 460,000				
Pb 41,000	Hg 28					
Hg 46	Ni 24,000					
Ni 25,000	Th 4,200					
Th 3,700	U 1,600					
U 1,600	Zn 53,000					
Zn 82,000	pH 8.59					
pH 8.72	BOD 120					
BOD 26	PHOSPHORUS 410,000					
PHOSPHORUS 460,000						

NOTE: ALL SAMPLE DEPTHS ARE BELOW RIVER BOTTOM DEPTH

SEE FIGURE 8 FOR ANALYTICAL LEGEND

ABS ABOVE RIVER BOTTOM SURFACE

* COMPOSITE SAMPLE

LEGEND:

- SUBJECT PROPERTY
- TURBIDITY CURTAINS AND LINKED SURFACE FLOTATION BUOYS (5' CURTAIN LENGTH)
- CABLE BUOYS
- FENCE
- GRAVEL BERM
- EROSION CONTROL BLANKETING
- SOIL BORING
- SOIL BORING / TEMPORARY MONITORING WELL
- TETRA TECH SOIL SAMPLE LOCATION
- TETRA TECH WATER SAMPLE LOCATION
- TETRA TECH RADIATION MONITORING LOCATION
- DISCRETE SAMPLING LOCATION
- GEOTECHNICAL BORING
- GEOTECHNICAL BORING WITH INCLINOMETER
- SURFACE WATER SAMPLE

PM ENVIRONMENTAL | Environmental & Engineering Services

FIGURE 5C

SAMPLING LOCATION MAP WITH RIVER SEDIMENT ANALYTICAL RESULTS - BEYOND RIVER BANK FAILURE AREA

PROJ: 5851 WEST JEFFERSON AVENUE DETROIT, MI

THIS IS NOT A LEGAL SURVEY

VERIFY SCALE 0 140'

IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

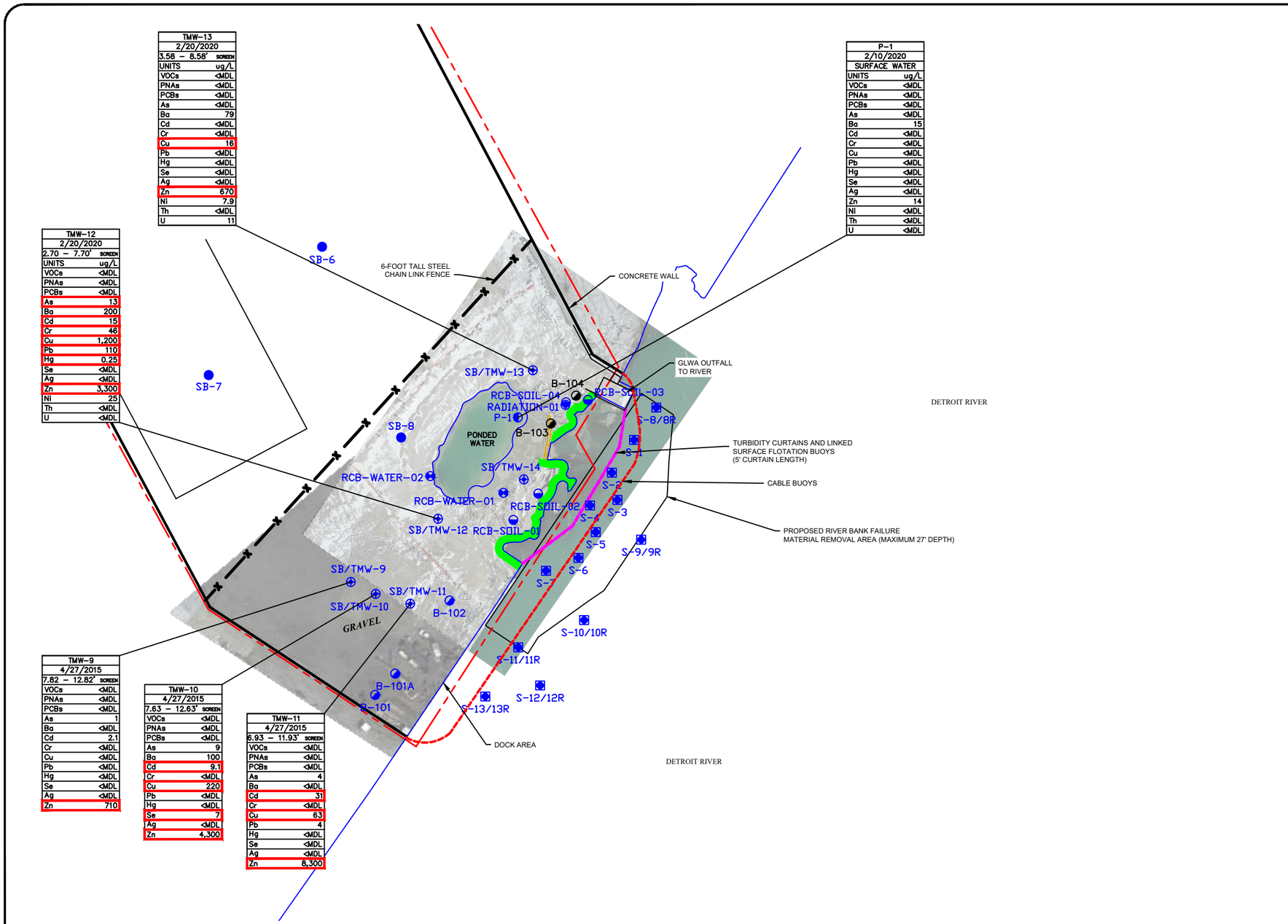
DRN BY: BP/ES

DATE: 3/18/2020

CHKD BY: AP/SZ

SCALE: 1" = 140'

FILE NAME: 01-5303-3-001F00R01



TMW-13	
2/20/2020	
3.58 – 8.58' SCREEN	
UNITS	ug/L
VOCs	<MDL
PNAs	<MDL
PCBs	<MDL
As	<MDL
Ba	79
Cd	<MDL
Cr	<MDL
Cu	16
Pb	<MDL
Hg	<MDL
Se	<MDL
Ag	<MDL
Zn	670
Ni	7.9
Th	<MDL
U	11

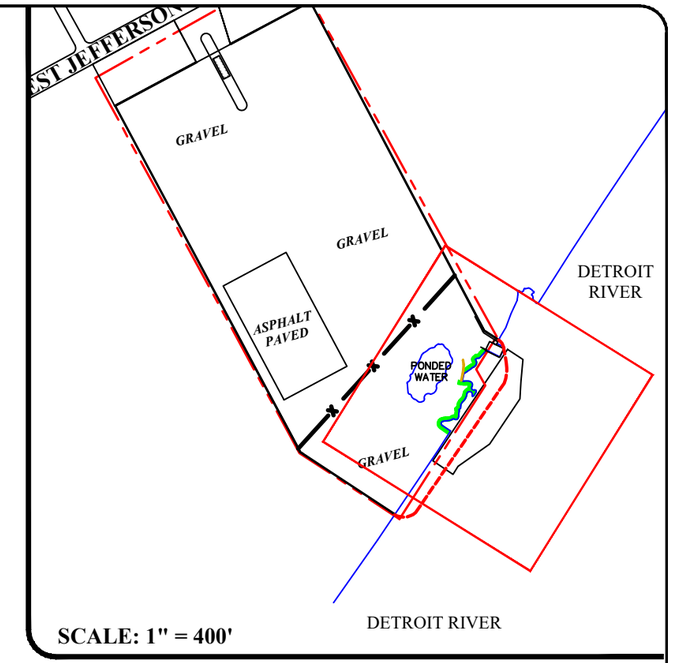
P-1	
2/10/2020	
SURFACE WATER	
UNITS	ug/L
VOCs	<MDL
PNAs	<MDL
PCBs	<MDL
As	<MDL
Ba	15
Cd	<MDL
Cr	<MDL
Cu	<MDL
Pb	<MDL
Hg	<MDL
Se	<MDL
Ag	<MDL
Zn	14
Ni	<MDL
Th	<MDL
U	<MDL

TMW-12	
2/20/2020	
2.70 – 7.70' SCREEN	
UNITS	ug/L
VOCs	<MDL
PNAs	<MDL
PCBs	<MDL
As	13
Ba	200
Cd	15
Cr	46
Cu	1,200
Pb	110
Hg	0.25
Se	<MDL
Ag	<MDL
Zn	3,300
Ni	25
Th	<MDL
U	<MDL

TMW-9	
4/27/2015	
7.82 – 12.82' SCREEN	
VOCs	<MDL
PNAs	<MDL
PCBs	<MDL
As	1
Ba	<MDL
Cd	2.1
Cr	<MDL
Cu	<MDL
Pb	<MDL
Hg	<MDL
Se	<MDL
Ag	<MDL
Zn	710

TMW-10	
4/27/2015	
7.63 – 12.63' SCREEN	
VOCs	<MDL
PNAs	<MDL
PCBs	<MDL
As	9
Ba	100
Cd	9.1
Cr	<MDL
Cu	220
Pb	<MDL
Hg	<MDL
Se	7
Ag	<MDL
Zn	4,300

TMW-11	
4/27/2015	
6.93 – 11.93' SCREEN	
VOCs	<MDL
PNAs	<MDL
PCBs	<MDL
As	4
Ba	<MDL
Cd	31
Cr	<MDL
Cu	63
Pb	4
Hg	<MDL
Se	<MDL
Ag	<MDL
Zn	8,300



LEGEND:

- SUBJECT PROPERTY
- TURBIDITY CURTAINS AND LINKED SURFACE FLOTATION BUOYS (5' CURTAIN LENGTH)
- CABLE BUOYS
- FENCE
- GRAVEL BERM
- EROSION CONTROL BLANKETING
- SOIL BORING
- SOIL BORING / TEMPORARY MONITORING WELL
- TETRA TECH SOIL SAMPLE LOCATION
- TETRA TECH WATER SAMPLE LOCATION
- TETRA TECH RADIATION MONITORING LOCATION
- DISCRETE SAMPLING LOCATION
- GEOTECHNICAL BORING
- GEOTECHNICAL BORING WITH INCLINOMETER
- SURFACE WATER SAMPLE

NOTE: ALL SAMPLE DEPTHS ARE BELOW RIVER BOTTOM DEPTH

SEE FIGURE 8 FOR ANALYTICAL LEGEND

ABS ABOVE RIVER BOTTOM SURFACE

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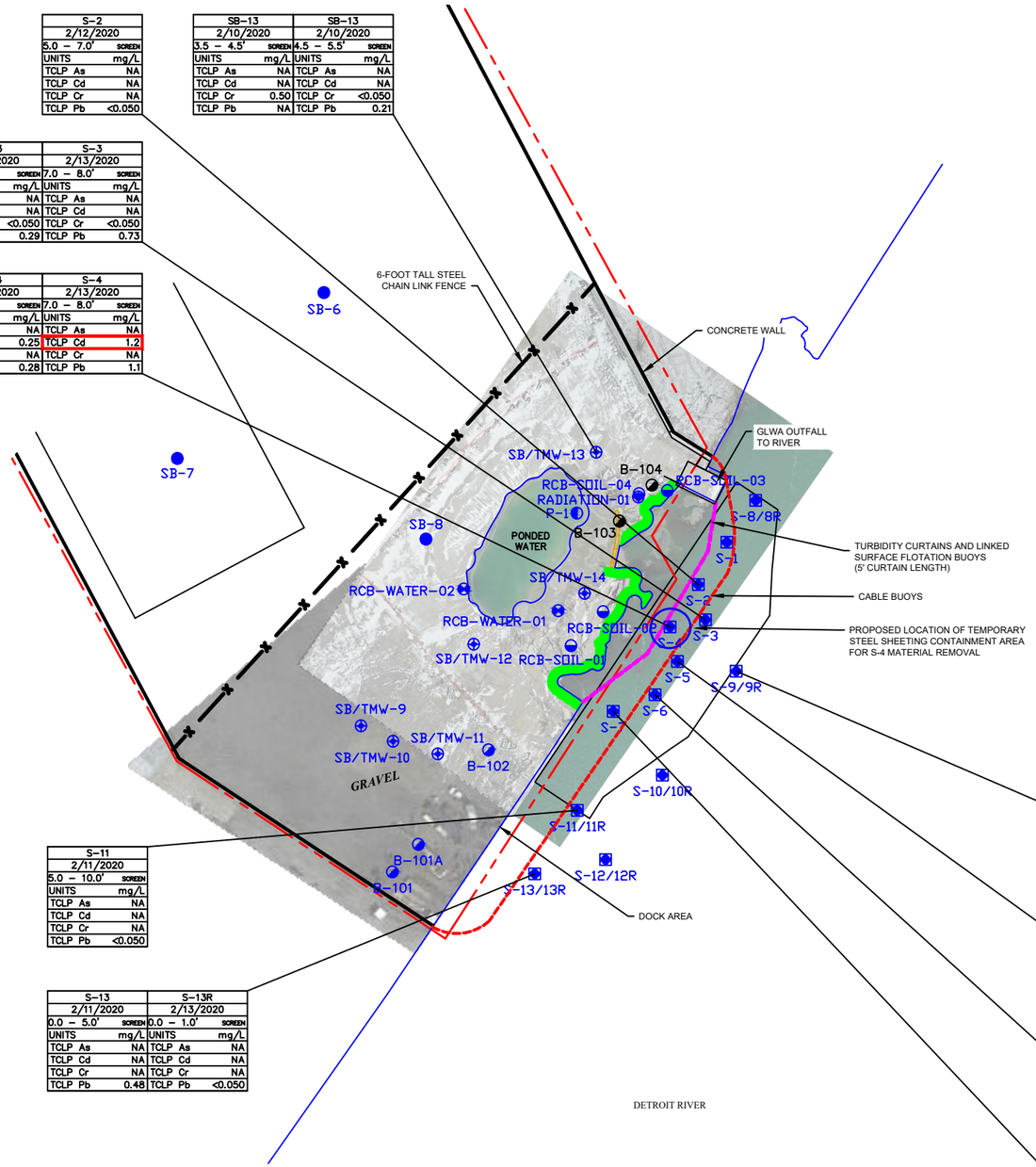
FIGURE 6

SAMPLING LOCATION MAP WITH GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS

PROJ: 5851 WEST JEFFERSON AVENUE DETROIT, MI

THIS IS NOT A LEGAL SURVEY	DRN BY: BP/ES	DATE: 3/18/2020
VERIFY SCALE 0 140' IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	CHKD BY: AP/SZ	SCALE: 1" = 140'
	FILE NAME: 01-5303-3-001F00R01	



S-2	
2/12/2020	
5.0 – 7.0' SCREEN	
UNITS	mg/L
TCLP As	NA
TCLP Cd	NA
TCLP Cr	NA
TCLP Pb	<0.050

SB-13		SB-13	
2/10/2020		2/10/2020	
3.5 – 4.5' SCREEN		4.5 – 5.5' SCREEN	
UNITS	mg/L	UNITS	mg/L
TCLP As	NA	TCLP As	NA
TCLP Cd	NA	TCLP Cd	NA
TCLP Cr	0.50	TCLP Cr	<0.050
TCLP Pb	NA	TCLP Pb	0.21

S-3		S-3	
2/13/2020		2/13/2020	
3.0 – 4.0' SCREEN		7.0 – 8.0' SCREEN	
UNITS	mg/L	UNITS	mg/L
TCLP As	NA	TCLP As	NA
TCLP Cd	NA	TCLP Cd	NA
TCLP Cr	<0.050	TCLP Cr	<0.050
TCLP Pb	0.29	TCLP Pb	0.73

S-4		S-4	
2/13/2020		2/13/2020	
2.0 – 3.0' SCREEN		7.0 – 8.0' SCREEN	
UNITS	mg/L	UNITS	mg/L
TCLP As	NA	TCLP As	NA
TCLP Cd	0.25	TCLP Cd	1.2
TCLP Cr	NA	TCLP Cr	NA
TCLP Pb	0.28	TCLP Pb	1.1

S-11	
2/11/2020	
5.0 – 10.0' SCREEN	
UNITS	mg/L
TCLP As	NA
TCLP Cd	NA
TCLP Cr	NA
TCLP Pb	<0.050

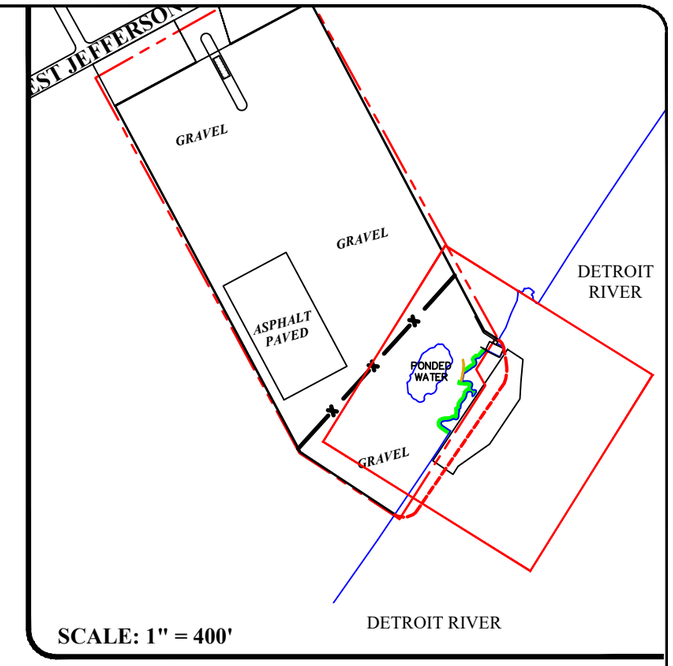
S-13		S-13R	
2/11/2020		2/13/2020	
0.0 – 5.0' SCREEN		0.0 – 1.0' SCREEN	
UNITS	mg/L	UNITS	mg/L
TCLP As	NA	TCLP As	NA
TCLP Cd	NA	TCLP Cd	NA
TCLP Cr	NA	TCLP Cr	NA
TCLP Pb	0.48	TCLP Pb	<0.050

S-9		S-9R		S-9R	
2/11/2020		2/17/2020		2/17/2020	
0.0 – 5.0' SCREEN		0.0 – 1.0' SCREEN		3.0 – 4.0' SCREEN	
UNITS	mg/L	UNITS	mg/L	UNITS	mg/L
TCLP As	NA	TCLP As	<0.050	TCLP As	NA
TCLP Cd	NA	TCLP Cd	NA	TCLP Cd	NA
TCLP Cr	NA	TCLP Cr	NA	TCLP Cr	NA
TCLP Pb	<0.050	TCLP Pb	NA	TCLP Pb	<0.050

S-5	
2/12/2020	
14.0 – 15.0' SCREEN	
UNITS	mg/L
TCLP As	NA
TCLP Cd	NA
TCLP Cr	NA
TCLP Pb	0.052

S-6		A-6	
2/13/2020		2/13/2020	
3.0 – 4.0' SCREEN		3.0 – 4.0' SCREEN	
UNITS	mg/L	UNITS	mg/L
TCLP As	NA	TCLP As	NA
TCLP Cd	NA	TCLP Cd	NA
TCLP Cr	NA	TCLP Cr	NA
TCLP Pb	<0.050	TCLP Pb	0.23

S-7		S-7	
2/13/2020		2/13/2020	
2.0 – 3.0' SCREEN		8.0 – 9.0' SCREEN	
UNITS	mg/L	UNITS	mg/L
TCLP As	NA	TCLP As	NA
TCLP Cd	NA	TCLP Cd	NA
TCLP Cr	<0.050	TCLP Cr	NA
TCLP Pb	NA	TCLP Pb	0.16



LEGEND:

- SUBJECT PROPERTY
- TURBIDITY CURTAINS AND LINKED SURFACE FLOTATION BUOYS (5' CURTAIN LENGTH)
- CABLE BUOYS
- FENCE
- GRAVEL BERM
- EROSION CONTROL BLANKETING
- SOIL BORING
- SOIL BORING / TEMPORARY MONITORING WELL
- TETRA TECH SOIL SAMPLE LOCATION
- TETRA TECH WATER SAMPLE LOCATION
- TETRA TECH RADIATION MONITORING LOCATION
- DISCRETE SAMPLING LOCATION
- GEOTECHNICAL BORING
- GEOTECHNICAL BORING WITH INCLINOMETER
- SURFACE WATER SAMPLE
- ESTIMATED EXTENT OF RIVER BANK FAILURE MATERIAL EXCEEDING TCLP LIMITS

NOTE: ALL SAMPLE DEPTHS ARE BELOW RIVER BOTTOM DEPTH

SEE FIGURE 8 FOR ANALYTICAL LEGEND

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FIGURE 7

SAMPLING LOCATION MAP WITH TCLP ANALYTICAL RESULTS

PROJ: 5851 WEST JEFFERSON AVENUE DETROIT, MI

THIS IS NOT A LEGAL SURVEY	DRN BY: BP/ES	DATE: 3/18/2020
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	FILE NAME: 01-5303-3-001F00R01	

ANALYTICAL LEGEND:

As	ARSENIC
Ba	BARIUM
Cd	CADMIUM
Cr	CHROMIUM
Cu	COPPER
Pb	LEAD
Th	THORIUM
Hg	MERCURY
Ni	NICKEL
Se	SELENIUM
Ag	SILVER
U	URANIUM
Zn	ZINC
ACE	ACENAPHTHENE
ACETHY	ACENAPHTHYLENE
ANT	ANTHRACENE
B(a)ANTH	BENZO(a)ANTHRACENE
B(a)PYR	BENZO(a)PYRENE
B(b)FLA	BENZO(b)FLUORANTHENE
B(g,h,i)PER	BENZO(g,h,i)PERYLENE
B(k)FLA	BENZO(k)FLUORANTHENE
F	FLUORENE
FL	FLUORANTHENE
I(1,2,3–CD)PY	INDENO(1,2,3,CD)PYRENE
2–M	2-METHYLNAPHTHALENE
NAPH	NAPHTHALENE
Ph	PHENANTHRENE
Py	PYRENE
DI(A,H)ANT	DIBENZO(a,h)ANTHRACENE
T	TOLUENE
E	ETHYLBENZENE
X	XYLENES
1,2,4–TMB	1,2,4-TRIMETHYLBENZENE
1,3,5–TMB	1,3,5-TRIMETHYLBENZENE
ISOP	ISOPROPYLBENZENE
n–PROP	n-PROPYLBENZENE
1,1–DCA	1,1-DICHLOROETHANE
pH	ACIDITY
BOD	BIOCHEMICAL OXYGEN DEMAND
VOCs	VOLATILE ORGANIC COMPOUNDS
PNAs	POLYNUCLEAR AROMATIC COMPOUNDS
PCBs	POLYCHLORINATED BIPHENYLS
TCLP	TOXICITY CHARACTERISTIC LEACHING PROCEDURE
MDL	METHOD DETECTION LIMIT
UNITs	µg/Kg (UNLESS NOTED)
	VALUE EXCEEDS CRITERIA

NOTES: REFER TO TABLES FOR SPECIFIC COMPOUNDS ANALYZED

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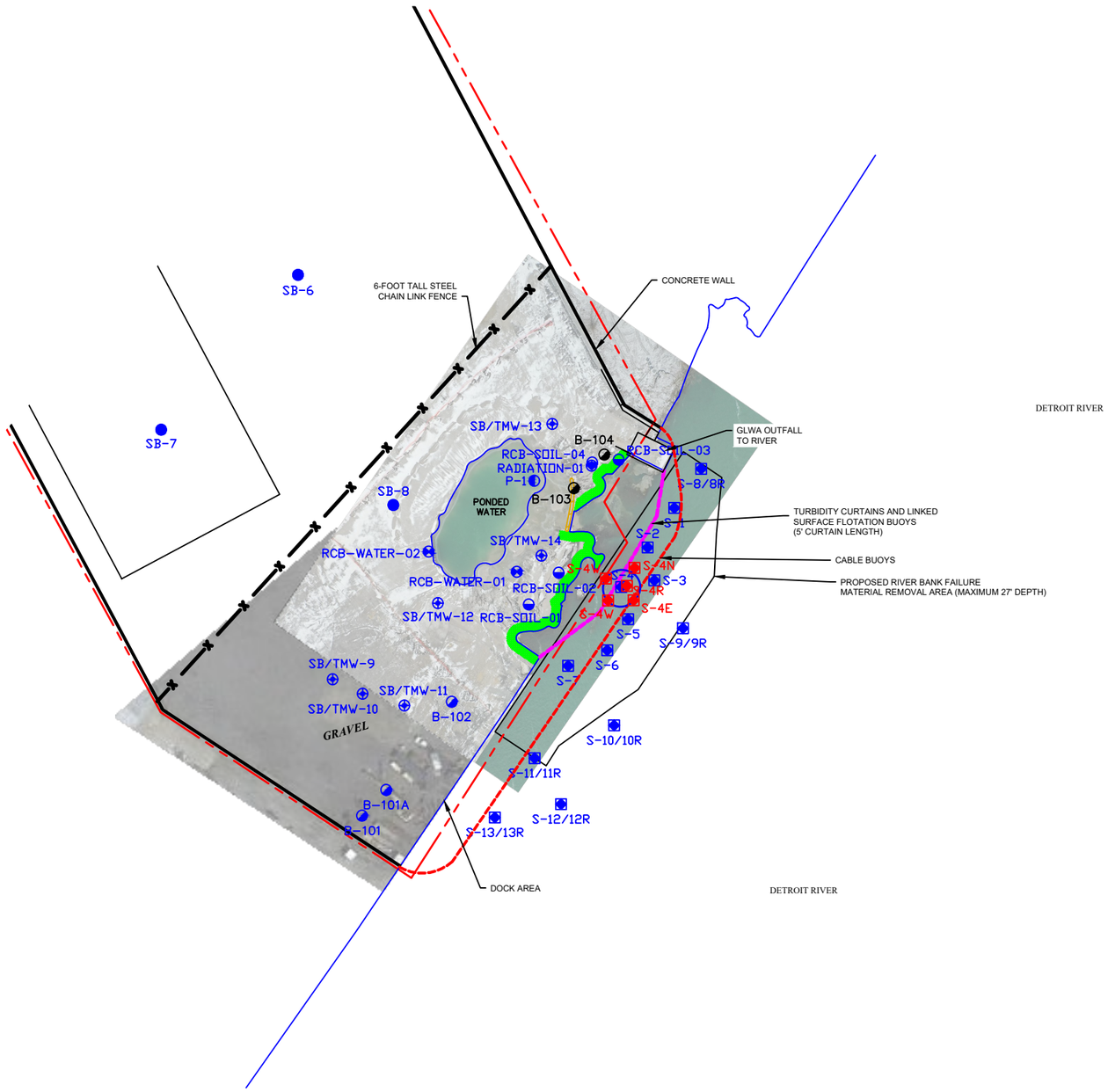
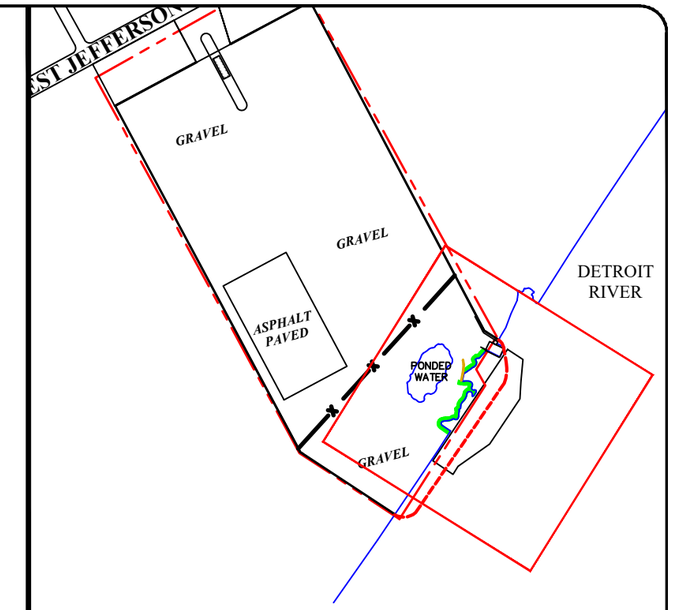
PROJ: 5851 WEST JEFFERSON AVENUE DETROIT, MI

FIGURE 8
ANALYTICAL LEGEND

DRN BY: ES	DATE: 3/18/2020
CHKD BY: AP/SZ	SCALE: N/A
FILE NAME: 01–5303–3–001F00R01	





SCALE: 1" = 400'

LEGEND:

- SUBJECT PROPERTY
- TURBIDITY CURTAINS AND LINKED SURFACE FLOTATION BUOYS (5' CURTAIN LENGTH)
- CABLE BUOYS
- FENCE
- GRAVEL BERM
- EROSION CONTROL BLANKETING
- SOIL BORING
- SOIL BORING / TEMPORARY MONITORING WELL
- TETRA TECH SOIL SAMPLE LOCATION
- TETRA TECH WATER SAMPLE LOCATION
- TETRA TECH RADIATION MONITORING LOCATION
- DISCRETE SAMPLING LOCATION
- GEOTECHNICAL BORING
- GEOTECHNICAL BORING WITH INCLINOMETER
- SURFACE WATER SAMPLE
- PROPOSED DELINEATION SAMPLING LOCATION

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FIGURE 9

PROPOSED RIVER BANK FAILURE AREA
DELINEATION SAMPLE LOCATION MAP

PROJ:
5851 WEST JEFFERSON AVENUE
DETROIT, MI

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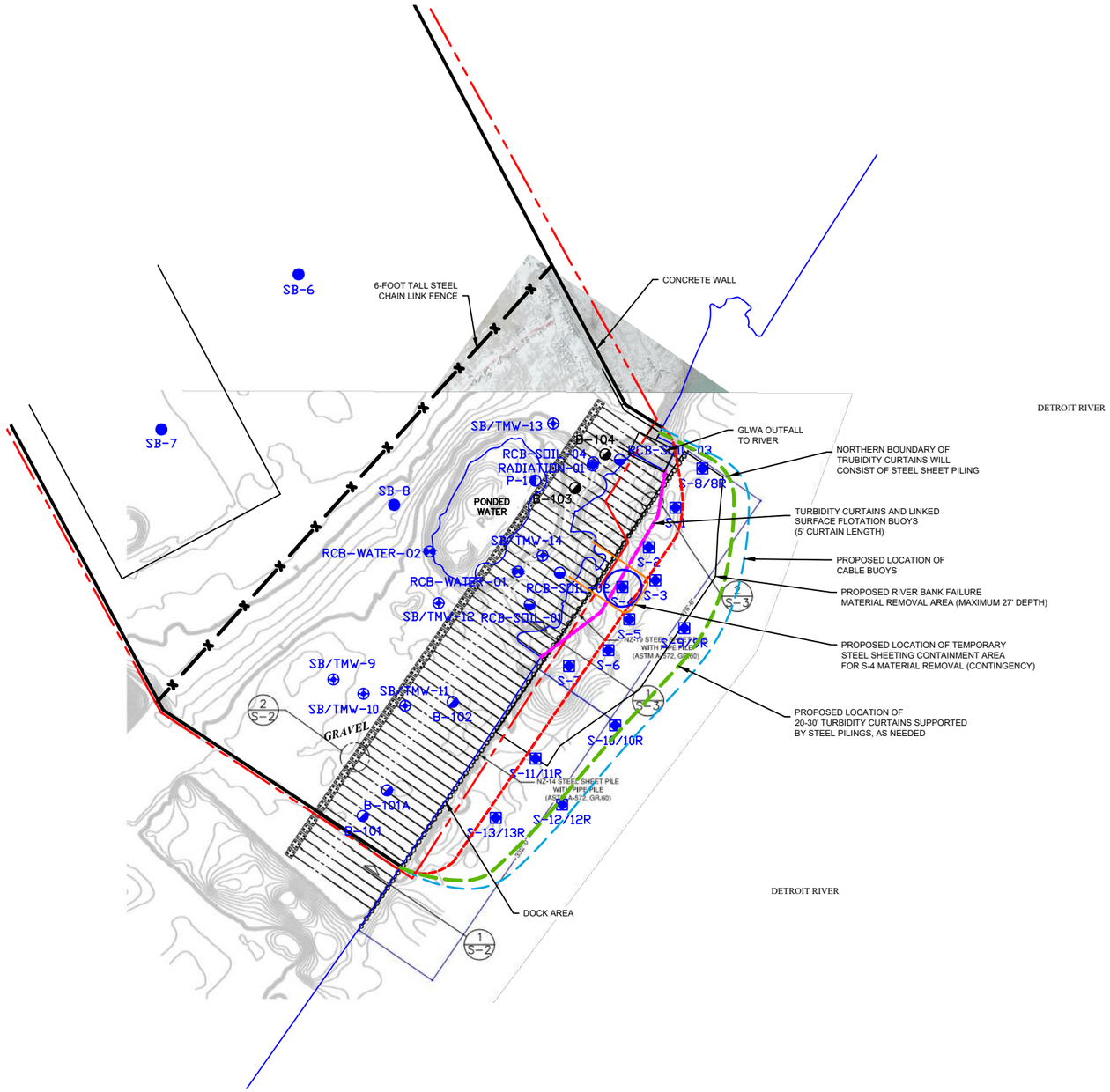

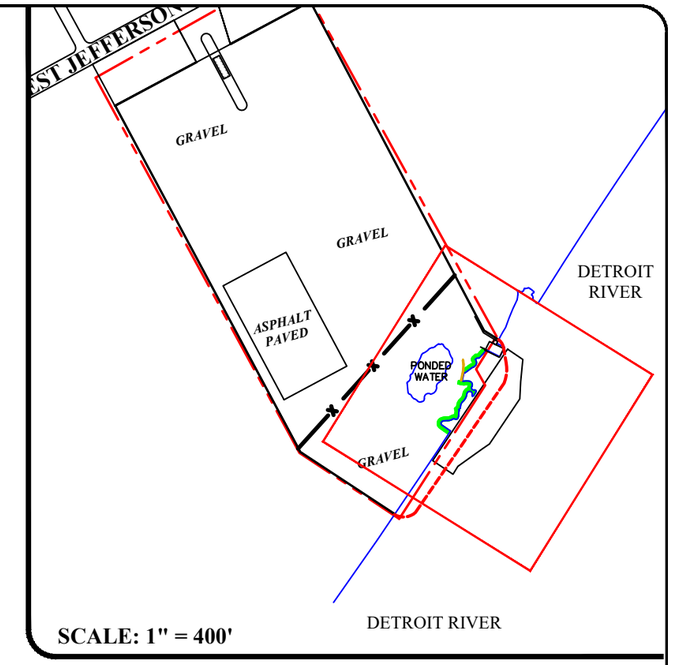

LEGEND:

- SUBJECT PROPERTY
- TURBIDITY CURTAINS AND LINKED SURFACE FLOTATION BUOYS (5' CURTAIN LENGTH)
- CABLE BUOYS
- FENCE
- SOIL BORING
- SOIL BORING / TEMPORARY MONITORING WELL
- TETRA TECH SOIL SAMPLE LOCATION
- TETRA TECH WATER SAMPLE LOCATION
- TETRA TECH RADIATION MONITORING LOCATION
- DISCRETE SAMPLING LOCATION
- GEOTECHNICAL BORING
- GEOTECHNICAL BORING WITH INCLINOMETER
- SURFACE WATER SAMPLE
- ESTIMATED EXTENT OF RIVER BANK FAILURE MATERIAL EXCEEDING TCLP LIMITS

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FIGURE 10

PROPOSED SEA WALL LAYOUT AND RIVER BANK FAILURE MATERIAL TURBIDITY CONTROLS

PROJ:
5851 WEST JEFFERSON AVENUE
DETROIT, MI

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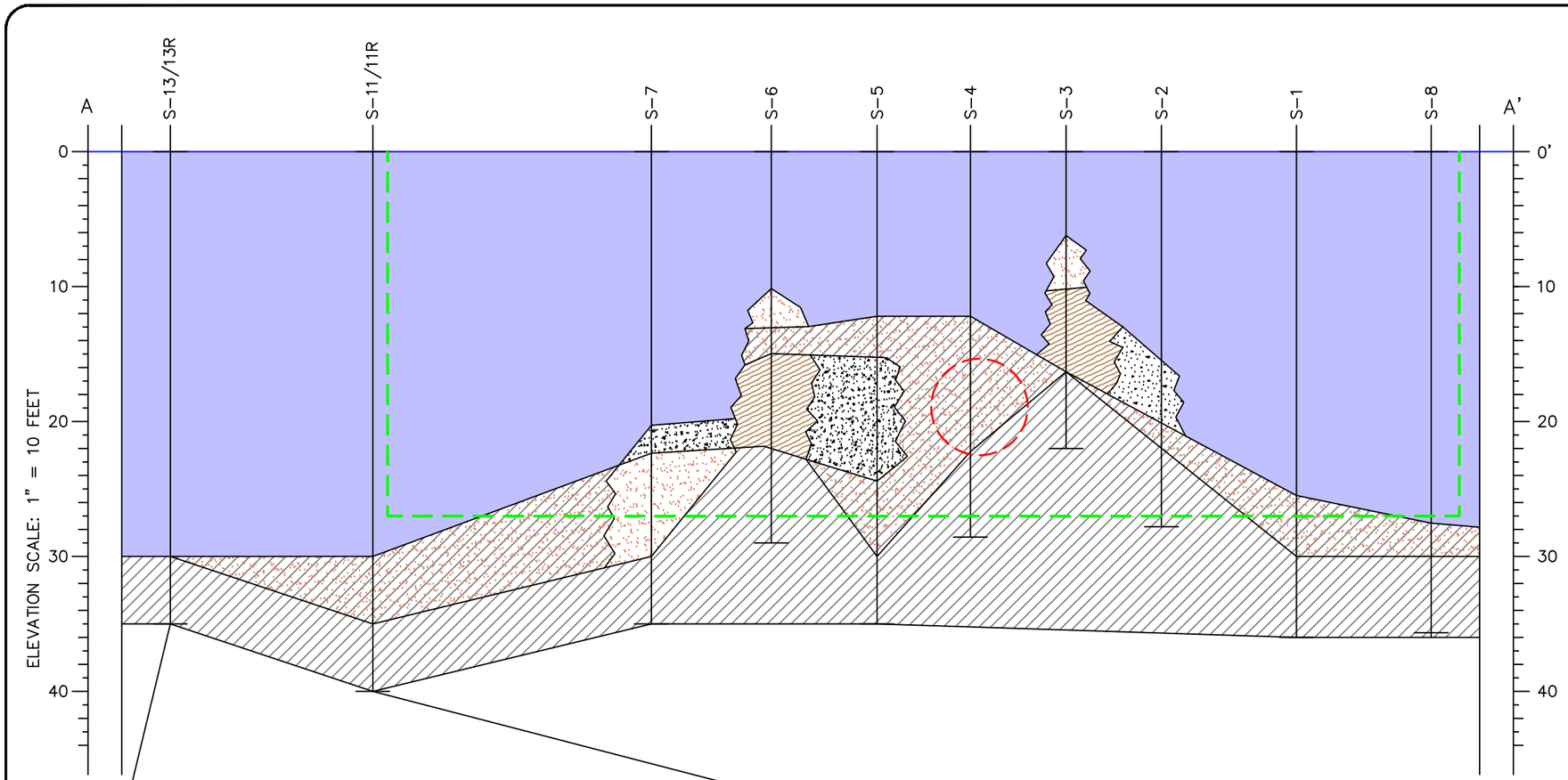

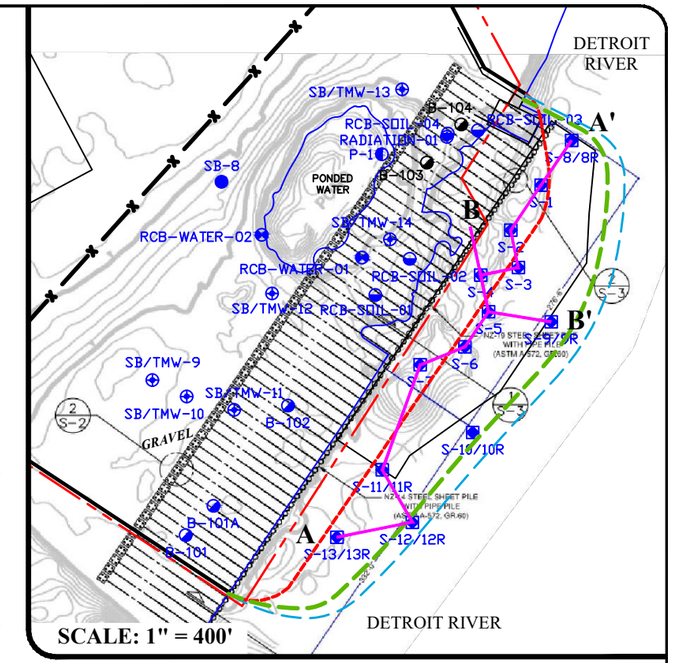

WATER COLUMN THICKNESS (FEET ABS)						
29.0'						
S-13*	S-13R	S-13R	A-7	S-13R	S-13R	S-13R
2/11/2020	2/13/2020	2/13/2020	2/13/2020	2/13/2020	2/13/2020	2/13/2020
0.0 – 5.0'	0.0 – 1.0'	1.0 – 2.0'	1.0 – 2.0'	2.0 – 3.0'	3.0 – 4.0'	4.0 – 5.0'
UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg
VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL
ACE 230	ACE 1,300	ACE 30	ACE 10	ACE 570	B(a)ANTH 9.9	ANT 9.4
ACETHY 36	ACETHY 55	ANT 53	ANT 9.6	ACETHY 31	ANT 13	FL 16
ANT 200	ANT 960	B(a)ANTH 26	B(a)ANTH 7.1	ANT 290	B(a)ANTH 7.3	Ph 32
B(a)ANTH 290	B(a)ANTH 500	CHRYSENE 26	FL 11	B(a)ANTH 71	CHRYSENE 6.3	Py 13
B(a)PYR 200	B(a)PYR 260	FL 63	F 8.0	B(a)PYR 26	FL 20	OTHER PNAs <MDL
B(b)FLA 250	B(b)FLA 260	F 26	Ph 40	B(b)FLA 35	F 7.7	PCBs <MDL
B(g,h,i)PER 47	B(g,h,i)PER 85	Ph 110	Py 13	B(g,h,i)PER 8.3	Ph 41	As 6,100
B(k)FLA 60	B(k)FLA 100	Py 64	OTHER PNAs <MDL	B(k)FLA 18	Py 22	Ba 74,000
CHRYSENE 300	CHRYSENE 480	OTHER PNAs <MDL	PCBs <MDL	CHRYSENE 65	OTHER PNAs <MDL	Cr 14,000
DI(A,H)ANT 13	DI(A,H)ANT 20	PCBs <MDL	As 4,500	FL 250	PCBs <MDL	Cu 15,000
FL 570	FL 1,500	As 5,000	Ba 110,000	F 680	As 7,400	Pb 9,000
F 150	F 880	Ba 90,000	Cr 18,000	I(1,2,3-CD)PY 9.7	Ba 68,000	Ni 22,000
I(1,2,3-CD)PY 61	I(1,2,3-CD)PY 100	Cr 18,000	Cu 17,000	2-M 1,200	Cr 14,000	Th 3,900
2-M 53	2-M 20	Cu 26,000	Pb 11,000	NAPH 1,200	Cu 18,000	U 1,600
NAPH 59	Ph 2,900	Pb 11,000	Hg 47	Ph 1,100	Pb 10,000	Zn 51,000
Ph 480	Py 1,700	Ni 25,000	Ni 23,000	Py 170	Ni 23,000	pH 8.44
Py 460	OTHER PNAs <MDL	Th 4,900	Th 5,000	OTHER PNAs <MDL	Th 4,100	BOD 180,000
OTHER PNAs <MDL	PCBs <MDL	U 1,400	U 1,300	PCBs <MDL	U 1,900	PHOSPHORUS 390,000
PCBs <MDL	As 4,900	Zn 63,000	Zn 86,000	As 5,400	Zn 52,000	
As 5,900	Ba 96,000	pH 8.40	pH 8.31	Ba 65,000	pH 8.45	
Ba 43,000	Cd 650	BOD <26,000	BOD 48,000	Cr 14,000	BOD <24,000	
Cd 2,000	Cr 26,000	PHOSPHORUS 420,000	PHOSPHORUS 480,000	Cu 23,000	PHOSPHORUS 380,000	
Cr 30,000	Cu 280,000			Pb 15,000		
Cu 1,000,000	Pb 110,000			Ni 21,000		
Pb 150,000	Hg 440			Th 3,800		
Hg 97	Ni 25,000			U 1,600		
Ni 30,000	Th 4,500			Zn 50,000		
Th 3,000	U 1,100			pH 8.43		
U 1,300	Zn 390,000			BOD <24,000		
Zn 1,100,000	pH 8.13			PHOSPHORUS 360,000		
pH 8.57	BOD <28,000					
BOD 18	PHOSPHORUS 490,000					
PHOSPHORUS 450,000						

WATER COLUMN THICKNESS (FEET ABS)						
30.0'						
S-11*	S-11	S-11R	S-11R	S-11R	S-11R	S-11R
2/11/2020	2/11/2020	2/11/2020	2/11/2020	2/11/2020	2/11/2020	2/11/2020
0.0 – 5.0'	5.0 – 10.0'	5.0 – 6.0'	6.0 – 7.0'	7.0 – 8.0'	8.0 – 9.0'	9.0 – 10.0'
UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg
VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL
ACE 25	ACE 150	ACE 42	ACE 8.1	ANT 6.8	ANT 7.4	ANT 6.5
ANT 29	ACETHY 17	ANT 36	ANT 8.7	B(a)ANTH 6.2	B(a)ANTH 5.8	B(a)ANTH 11
B(a)ANTH 42	ANT 250	B(a)ANTH 33	B(a)ANTH 11	FL 12	FL 15	FL 50
B(a)PYR 29	B(a)ANTH 260	B(a)PYR 23	B(a)PYR 6.5	F 5.2	Ph 23	Ph 21
B(b)FLA 36	B(a)PYR 190	B(b)FLA 25	B(b)FLA 5.4	Ph 32	Py 14	Py 10
B(g,h,i)PER 7.9	B(b)FLA 330	B(g,h,i)PER 8.2	CHRYSENE 7.7	Py 11	OTHER PNAs <MDL	OTHER PNAs <MDL
B(k)FLA 11	B(g,h,i)PER 110	B(k)FLA 7.2	FL 24	OTHER PNAs <MDL	PCBs <MDL	PCBs <MDL
CHRYSENE 37	B(k)FLA 98	CHRYSENE 31	F 7.9	PCBs <MDL	As 6,900	As 7,800
FL 100	CHRYSENE 280	FL 79	Ph 40	As 6,100	Ba 74,000	Ba 76,000
F 18	DI(A,H)ANT 21	F 38	Py 24	Ba 75,000	Cr 19,000	Cd 550
I(1,2,3-CD)PY 8.4	FL 1,000	I(1,2,3-CD)PY 10	OTHER PNAs <MDL	Cr 18,000	Cu 57,000	Cr 20,000
Ph 48	F 140	2-M 25	PCBs <MDL	Cu 14,000	Pb 15,000	Cu 71,000
Py 71	I(1,2,3-CD)PY 120	NAPH 94	As 6,100	Pb 9,100	Ni 20,000	Pb 16,000
OTHER PNAs <MDL	2-M 99	Ph 150	Ba 75,000	Ni 21,000	Th 4,100	Hg 21
PCBs <MDL	NAPH 230	Py 71	Cr 21,000	Th 4,300	U 1,700	Ni 23,000
As 4,200	Ph 840	OTHER PNAs <MDL	Cu 43,000	U 1,600	Zn 74,000	Th 4,300
Ba 150,000	Py 560	PCBs <MDL	Pb 16,000	Zn 58,000	pH 8.39	U 2,200
Cd 270	OTHER PNAs <MDL	As 5,800	Ni 21,000	pH 8.46	BOD <25,000	Zn 110,000
Cr 40,000	PCBs 240	Ba 73,000	Th 4,100	BOD <24,000	PHOSPHORUS 410,000	pH 8.41
Cu 170,000	As 4,000	Cd 280	U 1,700	PHOSPHORUS 420,000		BOD <25,000
Pb 51,000	Ba 77,000	Cr 21,000	Zn 74,000			PHOSPHORUS 370,000
Hg 140	Cd 340	Cu 140,000	pH 8.34			
Ni 29,000	Cr 16,000	Pb 30,000	BOD <24,000			
Th 5,400	Cu 130,000	Hg 43	PHOSPHORUS 380,000			
U 840	Pb 120,000	Ni 21,000				
Zn 140,000	Hg 34	Th 3,900				
pH 8.57	Ni 20,000	U 1,600				
BOD 7.7	Th 3,800	Zn 130,000				
PHOSPHORUS 530,000	U 1,000	pH 8.44				
	Zn 220,000	BOD <24,000				
	pH 8.66	PHOSPHORUS 340,000				
	BOD 9					
	PHOSPHORUS 450,000					

LEGEND:

- WATER
- CONCRETE
- SAND
- CLAY
- SANDY CLAY
- WOOD

NOTE:
- ALL SAMPLE DEPTHS ARE BELOW RIVER BOTTOM DEPTH
- SEE FIGURE 8 FOR ANALYTICAL LEGEND
- * COMPOSITE SAMPLE
- ESTIMATED EXTENT OF RIVER BANK FAILURE MATERIAL EXCEEDING TCLP LIMITS

10'
0
0 SCALE 50'

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FIGURE 11A

CONCEPTUAL CROSS SECTION A-A' WITH PROPOSED MATERIAL REMOVAL EXTENT WITH ANALYTICAL RESULTS

PROJ: 5851 WEST JEFFERSON AVENUE DETROIT, MI

THIS IS NOT A LEGAL SURVEY

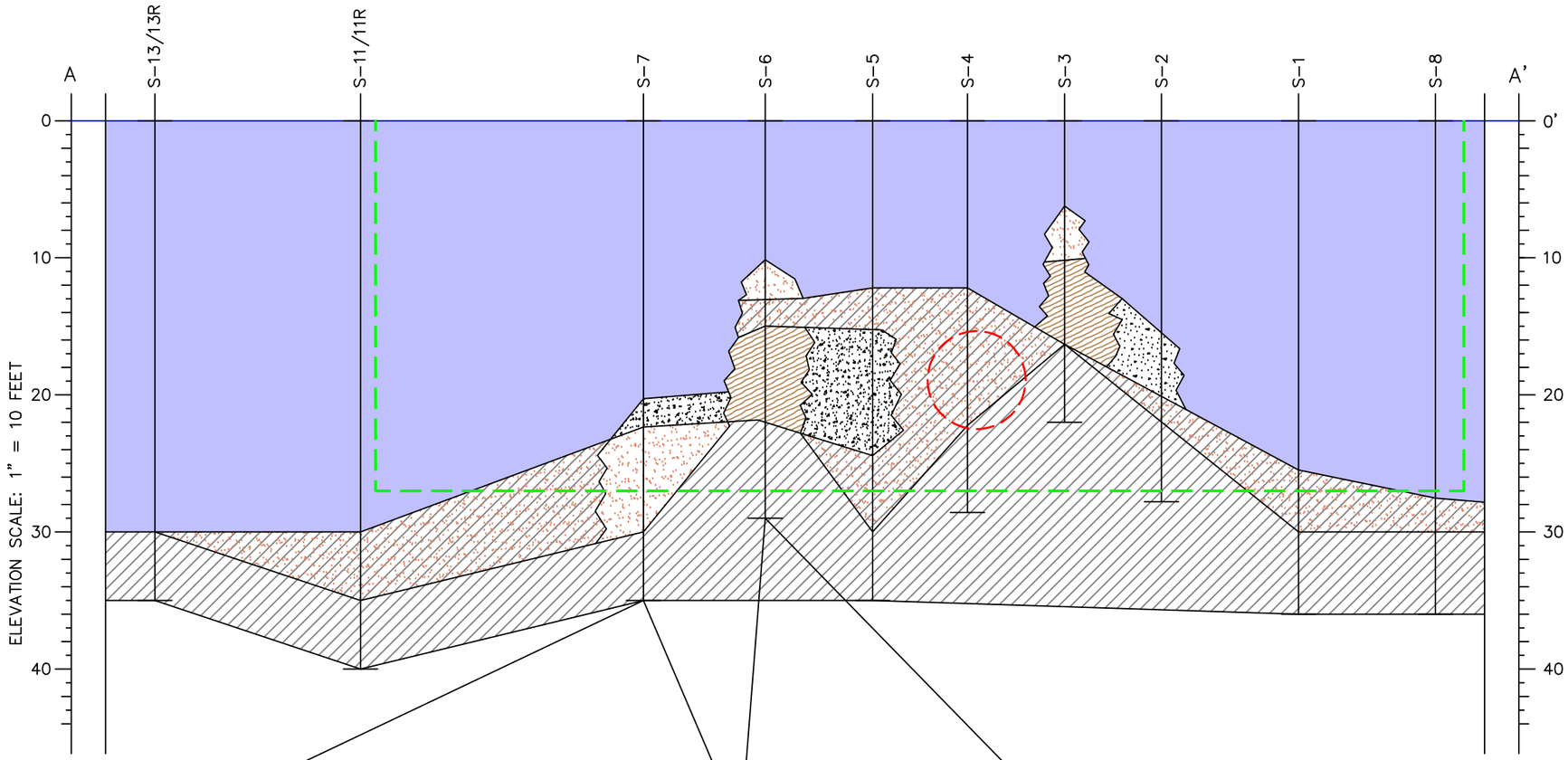
VERIFY SCALE 0 NOTED

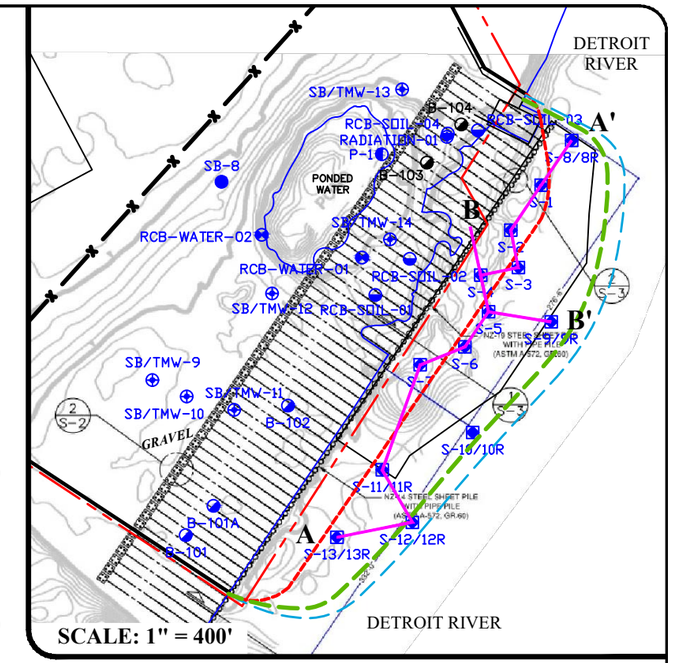
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRN BY: BP/ES | DATE: 3/18/2020

CHKD BY: AP/SZ | SCALE: NOTED

FILE NAME: 01-5303-3-001F00R01





WATER COLUMN THICKNESS (FEET ABS)			
20.0'			
S-7		S-7	
2/13/2020		2/13/2020	
2.0 – 3.0'		8.0 – 9.0'	
UNITS	ug/Kg	UNITS	ug/Kg
VOCs	<MDL	VOCs	<MDL
ACE	170	ACE	600
ACETHY	6.0	ACETHY	24
ANT	24	ANT	580
B(a)ANTH	14	B(a)ANTH	260
B(a)PYR	6.6	B(a)PYR	140
B(b)FLA	6.4	B(b)FLA	170
CHRYSENE	9.4	B(g,h,i)PER	58
FL	40	B(k)FLA	59
F	65	CHRYSENE	230
Ph	110	DI(A,H)ANT	13
Py	43	FL	850
OTHER PNAs	<MDL	F	530
PCBs	<MDL	I(1,2,3–CD)PY	82
As	8,300	2–M	200
Ba	59,000	NAPH	230
Cd	660	Ph	2,100
Cr	320,000	Py	770
Cu	330,000	OTHER PNAs	<MDL
Pb	75,000	PCBs	<MDL
Hg	49	As	8,900
Ni	23,000	Ba	73,000
Se	470	Cd	1,500
Th	4,100	Cr	17,000
U	1,000	Cu	310,000
Zn	370,000	Pb	200,000
pH	8.01	Hg	1,600
BOD	71,000	Ni	22,000
PHOSPHORUS	320,000	Th	4,500
		U	1,000
		Zn	450,000
		pH	7.48
		BOD	<27,000
		PHOSPHORUS	2,700,000

WATER COLUMN THICKNESS (FEET ABS)									
20.0'									
S-7		S-7		S-7		S-7		S-7	
2/13/2020		2/13/2020		2/13/2020		2/13/2020		2/13/2020	
10.0 – 11.0'		11.0 – 12.0'		12.0 – 13.0'		13.0 – 14.0'		14.0 – 15.0'	
UNITS	ug/Kg	UNITS	ug/Kg	UNITS	ug/Kg	UNITS	ug/Kg	UNITS	ug/Kg
VOCs	<MDL	VOCs	<MDL	VOCs	<MDL	VOCs	<MDL	VOCs	<MDL
ACE	120	ACE	120	ACE	15	Pb	15	ACE	27
ACETHY	7.1	ANT	130	ANT	19	OTHER PNAs	<MDL	ANT	25
ANT	150	B(a)ANTH	55	B(a)ANTH	7.5	PCBs	<MDL	B(a)ANTH	13
B(a)ANTH	90	B(a)PYR	34	CHRYSENE	5.2	As	6,500	B(a)PYR	7.2
B(a)PYR	52	B(b)FLA	34	FL	22	Ba	71,000	B(b)FLA	5.3
B(b)FLA	57	B(g,h,i)PER	19	F	12	Cr	13,000	CHRYSENE	8.0
B(g,h,i)PER	22	B(k)FLA	12	2–M	6.9	Cu	25,000	FL	34
B(k)FLA	21	CHRYSENE	56	Ph	61	Pb	10,000	F	18
CHRYSENE	87	FL	180	Py	23	Hg	27	2–M	6.8
FL	240	F	98	OTHER PNAs	<MDL	Ni	21,000	Ph	90
F	93	I(1,2,3–CD)PY	16	PCBs	<MDL	Th	4,000	Py	35
I(1,2,3–CD)PY	25	2–M	11	As	6,200	U	1,600	OTHER PNAs	<MDL
2–M	15	NAPH	5.4	Ba	74,000	Zn	53,000	PCBs	<MDL
NAPH	7.1	Ph	430	Cr	13,000	pH	8.19	As	5,700
Ph	480	Py	170	Cu	23,000	BOD	<24,000	Ba	63,000
Py	250	OTHER PNAs	<MDL	Pb	9,700	PHOSPHORUS	410,000	Cr	11,000
OTHER PNAs	<MDL	PCBs	<MDL	Ni	21,000			Cu	38,000
PCBs	<MDL	As	6,200	Th	4,100			Pb	8,700
As	6,700	Ba	72,000	U	1,600			Hg	24
Ba	72,000	Cr	13,000	Zn	60,000			Ni	18,000
Cd	260	Cu	26,000	pH	8.26			Th	3,600
Cr	14,000	Pb	14,000	BOD	<24,000			U	1,500
Cu	47,000	Hg	68	PHOSPHORUS	400,000			Zn	59,000
Pb	22,000	Ni	20,000					pH	8.17
Hg	43	Th	4,000					BOD	<24,000
Ni	21,000	U	1,700					PHOSPHORUS	380,000
Th	4,000	Zn	66,000						
U	1,600	pH	8.19						
Zn	140,000	BOD	<24,000						
pH	8.12	PHOSPHORUS	380,000						
BOD	<24,000								
PHOSPHORUS	350,000								

WATER COLUMN THICKNESS (FEET ABS)					
10.0 – 20.0'					
S-6		A-6		S-6	
2/13/2020		2/13/2020		2/13/2020	
3.0 – 4.0'		3.0 – 4.0'		8.0 – 9.0'	
UNITS	ug/Kg	UNITS	ug/Kg	UNITS	ug/Kg
T	180	T	110	VOCs	<MDL
1,2,4–TMB	89	1,2,4–TMB	56	ANT	11
X	240	OTHER VOCs	<MDL	B(a)ANTH	24
OTHER VOCs	<MDL	ACE	14	B(a)PYR	34
ACE	350	ANT	13	B(b)FLA	32
ANT	650	B(a)ANTH	17	B(g,h,i)PER	35
B(a)ANTH	820	B(a)PYR	13	B(k)FLA	11
B(a)PYR	580	B(b)FLA	14	CHRYSENE	34
B(b)FLA	900	B(g,h,i)PER	5.9	FL	39
B(g,h,i)PER	340	CHRYSENE	20	I(1,2,3–CD)PY	17
B(k)FLA	320	FL	36	Ph	36
CHRYSENE	890	F	9.5	Py	36
DI(A,H)ANT	70	I(1,2,3–CD)PY	6.2	OTHER PNAs	<MDL
FL	2,400	Ph	31	PCBs	<MDL
F	290	Py	31	As	6,600
I(1,2,3–CD)PY	430	OTHER PNAs	<MDL	Ba	82,000
2–M	270	PCBs	<MDL	Cd	1,300
NAPH	520	As	5,300	Cr	30,000
Ph	2,300	Ba	57,000	Cu	140,000
Py	1,500	Cd	7,100	Pb	23,000
OTHER PNAs	<MDL	Cr	19,000	Hg	51
PCBs	<MDL	Cu	1,000,000	Ni	20,000
As	8,500	Pb	130,000	Se	670
Ba	66,000	Hg	110	Th	4,300
Cd	13,000	Ni	10,000	U	1,500
Cr	20,000	Se	1,600	Zn	170,000
Cu	1,400,000	Th	1,800	pH	7.97
Pb	170,000	U	740	BOD	<26,000
Hg	100	Zn	840,000	PHOSPHORUS	390,000
Ni	17,000	pH	9.12		
Se	2,200	BOD	230,000		
Th	2,200	PHOSPHORUS	330,000		
U	870				
Zn	1,300,000				
pH	9.45				
BOD	250,000				
PHOSPHORUS	250,000				

WATER COLUMN THICKNESS (FEET ABS)									
		10.0 – 12.0'							
S-6		S-6		S-6		S-6		S-6	
2/13/2020		2/13/2020		2/13/2020		2/13/2020		2/13/2020	
12.0 – 13.0'		13.0 – 14.0'		14.0 – 15.0'		15.0 – 16.0'		16.0 – 17.0'	
UNITS	ug/Kg	UNITS	ug/Kg	UNITS	ug/Kg	UNITS	ug/Kg	UNITS	ug/Kg
VOCs	<MDL	VOCs	<MDL	VOCs	<MDL	VOCs	<MDL	VOCs	<MDL
Ph	12	Ph	9.2	Ph	12	Ph	9.9	B(a)ANTH	6.1
OTHER PNAs	<MDL	OTHER PNAs	<MDL	OTHER PNAs	<MDL	OTHER PNAs	<MDL	B(b)FLA	7.4
PCBs	<MDL	PCBs	<MDL	PCBs	<MDL	PCBs	<MDL	B(g,h,i)PER	8.1
As	5,700	As	6,800	As	7,400	As	6,200	FL	4.9
Ba	70,000	Ba	75,000	Ba	72,000	Ba	72,000	I(1,2,3–CD)PY	6.4
Cr	17,000	Cr	18,000	Cr	22,000	Cr	17,000	Ph	12
Cu	23,000	Cu	29,000	Cu	17,000	Cu	23,000	Py	6.4
Pb	9,400	Pb	11,000	Pb	9,300	Pb	9,300	OTHER PNAs	<MDL
Hg	27	Hg	24	Hg	25	Ni	20,000	PCBs	<MDL
Ni	19,000	Ni	21,000	Ni	21,000	Th	5,400	As	6,200
Th	3,800	Th	4,200	Th	4,000	U	1,600	Ba	72,000
U	1,500	U	1,800	U	1,900	Zn	54,000	Cr	19,000
Zn	66,000	Zn	77,000	Zn	57,000	pH	8.45	Cu	23,000
pH	8.30	pH	8.36	pH	8.36	BOD	<24,000	Pb	9,500
BOD	26,000	BOD	<24,000	BOD	<24,000	PHOSPHORUS	410,000	Ni	20,000
PHOSPHORUS	450,000	PHOSPHORUS	450,000	PHOSPHORUS	480,000			Th	4,000
								U	1,700
								Zn	57,000
								pH	8.39
								BOD	32,000
								PHOSPHORUS	400,000

LEGEND:

- WATER
- CONCRETE
- SAND
- CLAY
- SANDY CLAY
- WOOD

NOTE:
- ALL SAMPLE DEPTHS ARE BELOW RIVER BOTTOM DEPTH
- SEE FIGURE 8 FOR ANALYTICAL LEGEND
- * COMPOSITE SAMPLE
- ESTIMATED EXTENT OF RIVER BANK FAILURE MATERIAL EXCEEDING TCLP LIMITS

10'
0
0 SCALE 50'

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FIGURE 11B

CONCEPTUAL CROSS SECTION A-A' WITH PROPOSED MATERIAL REMOVAL EXTENT WITH ANALYTICAL RESULTS

PROJ: 5851 WEST JEFFERSON AVENUE DETROIT, MI

THIS IS NOT A LEGAL SURVEY	DRN BY: BP/ES	DATE: 3/18/2020
VERIFY SCALE 0 NOTED IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	CHKD BY: AP/SZ	SCALE: NOTED
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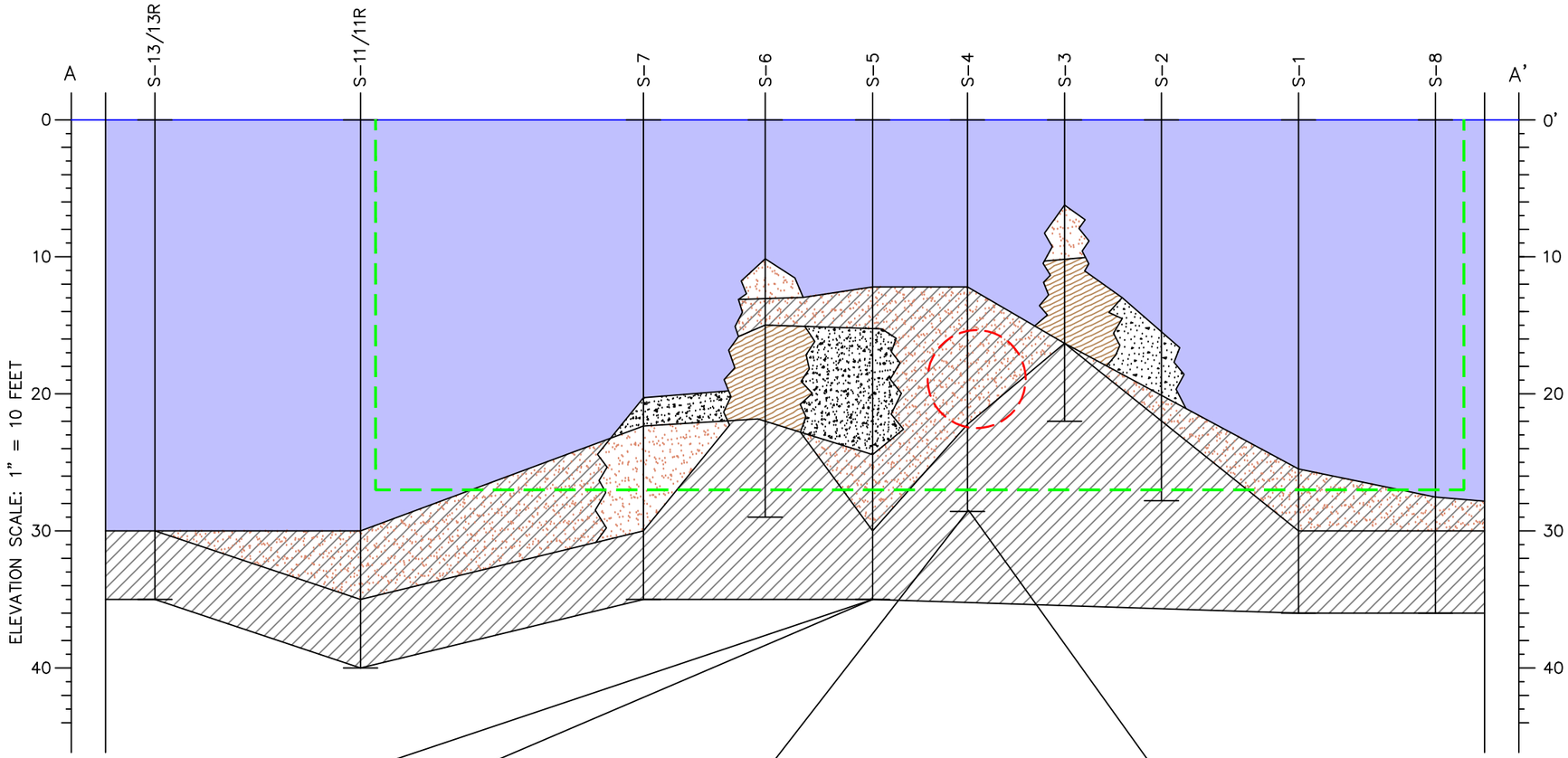

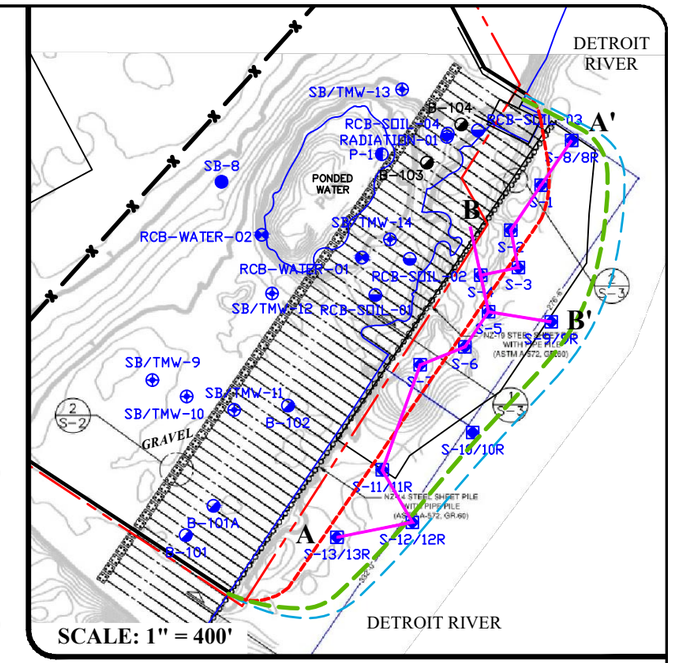

WATER COLUMN THICKNESS (FEET ABS)			
12.0'			
S-5		S-5	
2/12/2020		2/12/2020	
2.0 – 3.0'		14.0 – 15.0'	
UNITS	ug/Kg	UNITS	ug/Kg
E	52	VOCs	<MDL
ISOP	46	ACE	280
T	150	ACETHY	330
1,2,4-TMB	98	ANT	930
X	380	B(a)ANTH	470
OTHER VOCs	<MDL	B(a)PYR	260
ACE	240	B(b)FLA	420
ACETHY	180	B(g,h,i)PER	110
ANT	1,000	B(k)FLA	110
B(a)ANTH	700	CHRYSENE	440
B(a)PYR	470	DI(A,H)ANT	22
B(b)FLA	760	FL	2,400
B(g,h,i)PER	220	F	1,100
B(k)FLA	180	I(1,2,3-CD)PY	130
CHRYSENE	690	2-M	690
DI(A,H)ANT	39	NAPH	460
FL	2,900	Ph	3,700
F	650	Py	1,200
I(1,2,3-CD)PY	260	OTHER PNAs	<MDL
2-M	150	PCBs	<MDL
NAPH	81	As	7,600
Ph	3,200	Ba	69,000
Py	1,400	Cd	7,300
OTHER PNAs	<MDL	Cr	28,000
PCBs	<MDL	Cu	1,700,000
As	4,900	Pb	210,000
Ba	86,000	Hg	70
Cd	11,000	Ni	17,000
Cr	17,000	Th	2,400
Cu	1,600,000	U	1,200
Pb	66,000	Zn	1,200,000
Hg	54	pH	11.1
Ni	14,000	BOD	7.8
Ag	630	PHOSPHORUS	<270,000
Th	3,600		
U	910		
Zn	680,000		
pH	9.69		
BOD	14		
PHOSPHORUS	250,000		

WATER COLUMN THICKNESS (FEET ABS)	
12.0'	
S-5*	
2/12/2020	
17.0 – 22.0'	
UNITS	ug/Kg
VOCs	<MDL
ANT	12
B(a)ANTH	7.1
FL	18
F	9.5
2-M	6.9
Ph	39
Py	11
OTHER PNAs	<MDL
PCBs	<MDL
As	6,200
Ba	76,000
Cr	13,000
Cu	17,000
Pb	9,300
Ni	22,000
Th	4,000
U	1,500
Zn	52,000
pH	8.68
BOD	8.4
PHOSPHORUS	320,000

WATER COLUMN THICKNESS (FEET ABS)			
12.0'			
S-4		S-4	
2/13/2020		2/13/2020	
2.0 – 3.0'		7.0 – 8.0'	
UNITS	ug/Kg	UNITS	ug/Kg
T	89	T	70
1,2,4-TMB	69	1,2,4-TMB	44
OTHER VOCs	<MDL	OTHER VOCs	<MDL
ACE	1,600	ACE	290
ACETHY	82	ACETHY	20
ANT	1,200	ANT	350
B(a)ANTH	1,200	B(a)ANTH	640
B(a)PYR	780	B(a)PYR	590
B(b)FLA	730	B(b)FLA	520
B(g,h,i)PER	320	B(g,h,i)PER	330
B(k)FLA	210	B(k)FLA	110
CHRYSENE	1,000	CHRYSENE	590
DI(A,H)ANT	130	DI(A,H)ANT	170
FL	2,300	FL	980
F	890	F	220
I(1,2,3-CD)PY	350	I(1,2,3-CD)PY	310
2-M	400	2-M	110
NAPH	300	NAPH	110
Ph	3,300	Ph	1,000
Py	2,400	Py	990
OTHER PNAs	<MDL	OTHER PNAs	<MDL
PCBs	<MDL	PCBs	<MDL
As	23,000	As	8,600
Ba	80,000	Ba	74,000
Cd	200,000	Cd	89,000
Cr	91,000	Cr	31,000
Cu	4,800,000	Cu	5,000,000
Pb	380,000	Pb	1,200,000
Hg	670	Hg	160
Ni	15,000	Ni	17,000
Se	1,300	Se	570
Ag	2,100	Th	2,200
Th	2,400	U	790
U	910	Zn	2,800,000
Zn	5,300,000	pH	11.0
pH	10.6	BOD	110,000
BOD	140,000	PHOSPHORUS	280,000
PHOSPHORUS	480,000		

WATER COLUMN THICKNESS (FEET ABS)									
6.0'									
S-4		S-4		S-4		S-4		S-4	
2/13/2020		2/13/2020		2/13/2020		2/13/2020		2/13/2020	
10.0 – 11.0'		11.0 – 12.0'		12.0 – 13.0'		13.0 – 14.0'		14.0 – 15.0'	
UNITS	ug/Kg	UNITS	ug/Kg	UNITS	ug/Kg	UNITS	ug/Kg	UNITS	ug/Kg
VOCs	<MDL	VOCs	<MDL	VOCs	<MDL	VOCs	<MDL	VOCs	<MDL
ACE	56	ACE	64	FL	5.4	ACE	23	ACE	25
ANT	14	ANT	60	Ph	6.1	ANT	18	ANT	5.9
B(a)ANTH	15	B(a)ANTH	55	OTHER PNAs	<MDL	B(a)ANTH	12	FL	9.5
B(a)PYR	7.6	B(a)PYR	35	PCBs	<MDL	B(a)PYR	7.1	F	12
B(b)FLA	6.4	B(b)FLA	38	As	10,000	B(b)FLA	8.9	Ph	21
CHRYSENE	9.0	B(g,h,i)PER	12	Ba	120,000	B(g,h,i)PER	5.4	Py	10
FL	25	B(k)FLA	13	Cr	22,000	CHRYSENE	9.8	OTHER PNAs	<MDL
F	14	CHRYSENE	51	Cu	44,000	FL	29	PCBs	<MDL
2-M	8.6	FL	110	Pb	18,000	F	13	As	55,000
Ph	42	F	37	Hg	47	Ph	49	Ba	110,000
Py	29	I(1,2,3-CD)PY	14	Ni	28,000	Py	34	Cr	24,000
OTHER PNAs	<MDL	2-M	14	Th	6,100	OTHER PNAs	<MDL	Cu	64,000
PCBs	<MDL	NAPH	6.0	U	1,100	PCBs	<MDL	Pb	30,000
As	8,800	Ph	170	Zn	74,000	As	9,200	Hg	110
Ba	120,000	Py	130	pH	8.14	Ba	160,000	Ni	33,000
Cr	22,000	OTHER PNAs	<MDL	BOD	<8,300	Cr	24,000	Th	6,500
Cu	53,000	PCBs	<MDL	PHOSPHORUS	270,000	Cu	53,000	U	1,200
Pb	17,000	As	7,400			Pb	17,000	Zn	120,000
Hg	63	Ba	140,000			Ni	30,000	pH	7.97
Ni	27,000	Cr	22,000			Se	520	BOD	<8,400
Th	6,400	Cu	25,000			Th	6,900	PHOSPHORUS	460,000
U	1,100	Pb	12,000			U	1,300		
Zn	79,000	Hg	620			Zn	91,000		
pH	10.6	Ni	29,000			pH	8.02		
BOD	140,000	Se	450			BOD	<8,200		
PHOSPHORUS	480,000	Th	6,800			PHOSPHORUS	380,000		
		U	1,600						
		Zn	55,000						
		pH	7.95						
		BOD	<8,300						
		PHOSPHORUS	310,000						

LEGEND:

- WATER
- CONCRETE
- SAND
- CLAY
- SANDY CLAY
- WOOD

NOTE:
- ALL SAMPLE DEPTHS ARE BELOW RIVER BOTTOM DEPTH
- SEE FIGURE 8 FOR ANALYTICAL LEGEND
- * COMPOSITE SAMPLE
- ESTIMATED EXTENT OF RIVER BANK FAILURE MATERIAL EXCEEDING TCLP LIMITS

10'
0
0
50'
SCALE

PM ENVIRONMENTAL | Environmental & Engineering Services

FIGURE 11C

CONCEPTUAL CROSS SECTION A-A' WITH PROPOSED MATERIAL REMOVAL EXTENT WITH ANALYTICAL RESULTS

PROJ: 5851 WEST JEFFERSON AVENUE DETROIT, MI

THIS IS NOT A LEGAL SURVEY	DRN BY: BP/ES	DATE: 3/18/2020
VERIFY SCALE 0 NOTED IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	CHKD BY: AP/SZ	SCALE: NOTED
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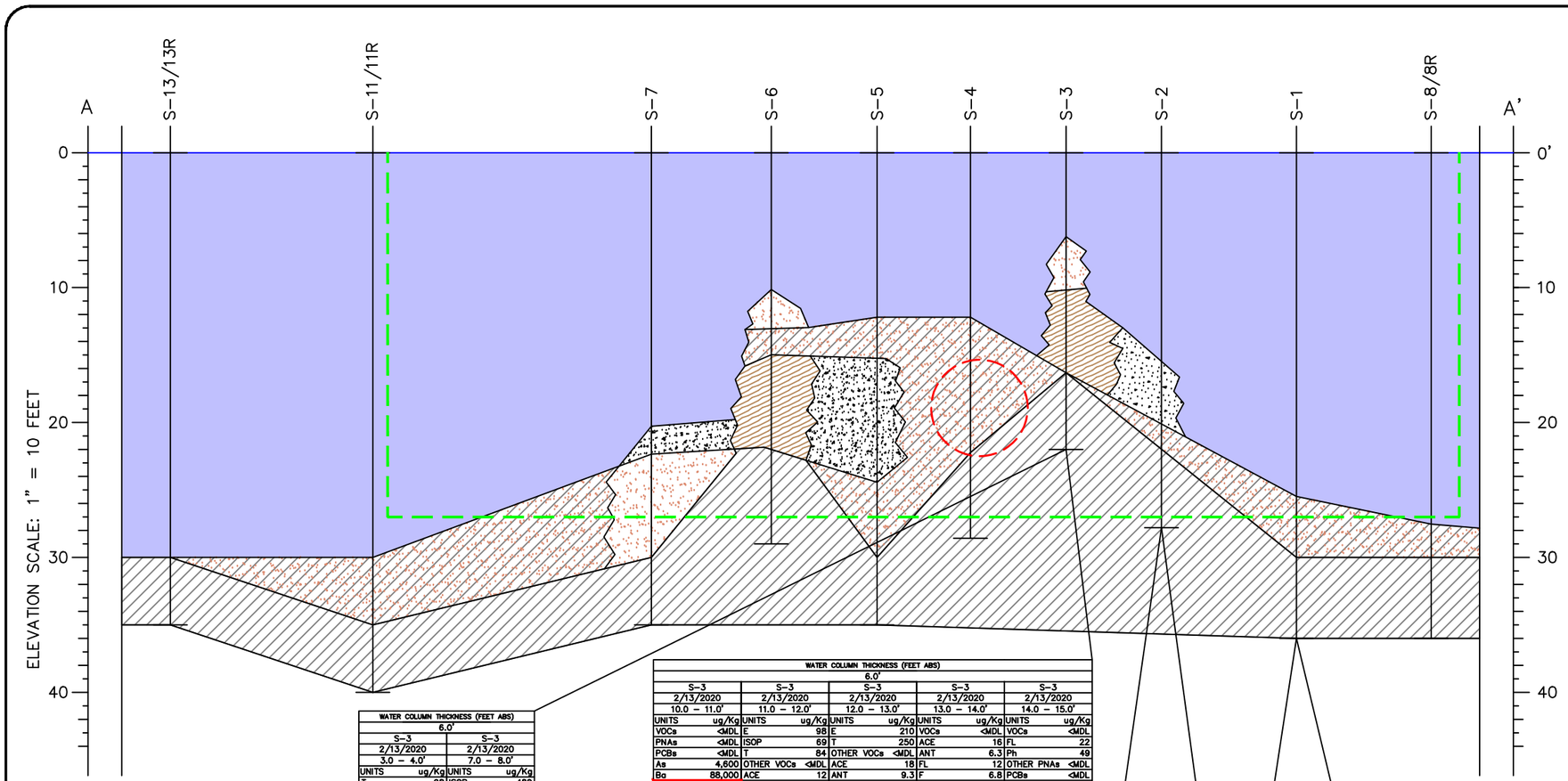
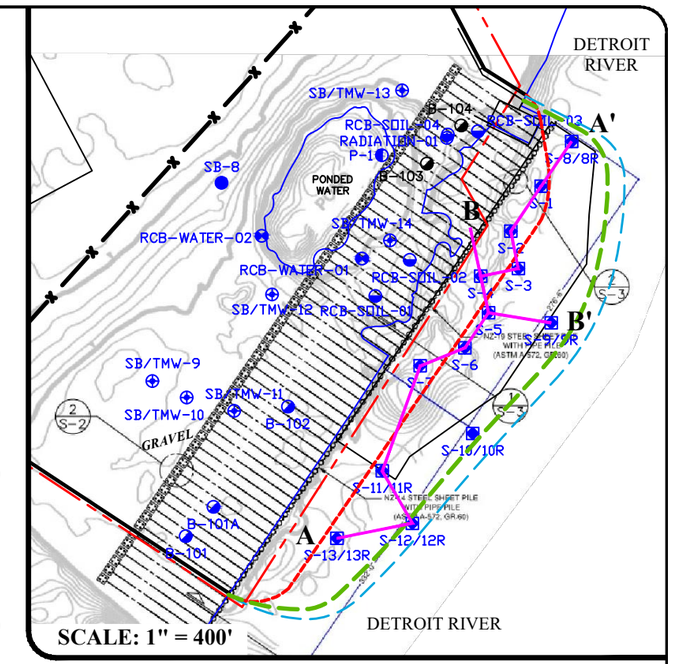




WATER COLUMN THICKNESS (FEET ABS)	
6.0'	
S-3	S-3
2/13/2020	2/13/2020
3.0 – 4.0'	7.0 – 8.0'
UNITS ug/Kg	UNITS ug/Kg
T 98	ISOP 480
OTHER VOCs <MDL	T 200
ACE 570	OTHER VOCs <MDL
ACETHY 110	ACE 600
ANT 380	ACETHY 180
B(a)ANTH 820	ANT 880
B(a)PYR 650	B(a)ANTH 1,400
B(b)FLA 780	B(a)PYR 1,000
B(g,h,i)PER 430	B(b)FLA 1,200
B(k)FLA 220	B(g,h,i)PER 630
CHRYSENE 920	B(k)FLA 330
DI(A,H)ANT 82	CHRYSENE 1,500
FL 2,000	DI(A,H)ANT 140
F 290	FL 3,600
I(1,2,3-CD)PY 390	F 600
2-M 94	I(1,2,3-CD)PY 570
NAPH 96	2-M 520
Ph 1,600	NAPH 290
Py 1,600	Ph 3,700
OTHER PNAs <MDL	Py 2,200
PCBs <MDL	OTHER PNAs <MDL
As 11,000	PCBs <MDL
Ba 100,000	As 7,400
Cd 15,000	Ba 98,000
Cr 110,000	Cd 6,000
Cu 2,100,000	Cr 100,000
Pb 560,000	Cu 2,200,000
Hg 420	Pb 420,000
Ni 14,000	Hg 240
Ag 2,000	Ni 23,000
Th 1,900	Th 1,800
U 1,500	U 1,400
Zn 2,300,000	Zn 1,300,000
pH 8.18	pH 8.11
BOD 240,000	BOD 3,800,000
PHOSPHORUS 450,000	PHOSPHORUS 190,000

WATER COLUMN THICKNESS (FEET ABS)									
6.0'									
S-3		S-3		S-3		S-3		S-3	
2/13/2020		2/13/2020		2/13/2020		2/13/2020		2/13/2020	
10.0 – 11.0'		11.0 – 12.0'		12.0 – 13.0'		13.0 – 14.0'		14.0 – 15.0'	
UNITS	ug/Kg	UNITS	ug/Kg	UNITS	ug/Kg	UNITS	ug/Kg	UNITS	ug/Kg
VOCs	<MDL	E	98	E	210	VOCs	<MDL	VOCs	<MDL
PNAs	<MDL	ISOP	69	T	250	ACE	16	FL	22
PCBs	<MDL	T	84	OTHER VOCs	<MDL	ANT	6.3	Ph	49
As	4,600	OTHER VOCs	<MDL	ACE	18	FL	12	OTHER PNAs	<MDL
Ba	88,000	ACE	12	ANT	9.3	F	6.8	PCBs	<MDL
Cr	19,000	ANT	6.7	FL	15	2-M	8.0	As	5,200
Cu	35,000	FL	11	F	9.9	NAPH	11	Ba	80,000
Pb	14,000	F	6.5	2-M	13	Ph	29	Cr	17,000
Ni	24,000	2-M	9.5	NAPH	33	Py	9.1	Cu	16,000
Th	5,000	NAPH	7.7	Ph	39	OTHER PNAs	<MDL	Pb	11,000
U	1,200	Ph	27	Py	13	PCBs	<MDL	Ni	23,000
Zn	71,000	Py	9.3	OTHER PNAs	<MDL	As	6,800	Th	4,900
pH	8.37	OTHER PNAs	<MDL	PCBs	<MDL	Ba	81,000	U	1,300
BOD	37,000	PCBs	<MDL	As	7,800	Cr	20,000	Zn	42,000
PHOSPHORUS	420,000	As	6,700	Ba	100,000	Cu	23,000	pH	8.17
		Ba	100,000	Cr	23,000	Pb	14,000	BOD	30,000
		Cr	24,000	Cu	31,000	Ni	27,000	PHOSPHORUS	390,000
		Cu	28,000	Pb	18,000	Th	5,100		
		Pb	15,000	Ni	32,000	U	1,400		
		Hg	25	Th	6,000	Zn	50,000		
		Ni	31,000	U	1,800	pH	8.03		
		Th	5,800	Zn	57,000	BOD	35,000		
		U	1,400	pH	8.14	PHOSPHORUS	310,000		
		Zn	57,000	BOD	28,000				
		pH	8.27	PHOSPHORUS	360,000				
		BOD	43,000						
		PHOSPHORUS	350,000						

WATER COLUMN THICKNESS (FEET ABS)
12.0 – 15.0'
S-2
2/12/2020
5.0 – 7.0'
UNITS ug/Kg
E 48
T 180
1,2,4-TMB 64
OTHER VOCs <MDL
ACE 74
ANT 33
B(a)ANTH 27
B(a)PYR 17
B(b)FLA 21
B(g,h,i)PER 8.8
B(k)FLA 7.1
CHRYSENE 33
FL 99
F 42
I(1,2,3-CD)PY 6.8
2-M 100
NAPH 250
Ph 170
Py 68
OTHER PNAs <MDL
PCBs <MDL
As 6,800
Ba 100,000
Cd 6,900
Cr 30,000
Cu 1,600,000
Pb 11,000
Hg 37
Ni 22,000
Th 5,600
U 960
Zn 1,400,000
pH 7.95
BOD 12
PHOSPHORUS 220,000

WATER COLUMN THICKNESS (FEET ABS)
12.0 – 15.0'
S-2*
2/12/2020
7.0 – 12.0'
UNITS ug/Kg
VOCs <MDL
ANT 6.8
B(a)ANTH 7.9
CHRYSENE 6.7
FL 22
2-M 7.2
NAPH 7.9
Ph 28
Py 14
OTHER PNAs <MDL
PCBs <MDL
As 6,500
Ba 97,000
Cd 670
Cr 25,000
Cu 120,000
Pb 23,000
Ni 26,000
Th 6,000
U 1,300
Zn 200,000
pH 7.81
BOD 7
PHOSPHORUS 380,000

WATER COLUMN THICKNESS (FEET ABS)
25.0'
S-1*
2/12/2020
5.0 – 10.0'
UNITS ug/Kg
VOCs <MDL
ANT 6.6
FL 8.0
Ph 11
OTHER PNAs <MDL
PCBs <MDL
As 5,800
Ba 36,000
Cr 10,000
Cu 13,000
Pb 6,900
Ni 17,000
Th 3,100
U 1,200
Zn 46,000
pH 8.65
BOD 6.7
PHOSPHORUS 320,000

WATER COLUMN THICKNESS (FEET ABS)
25.0'
S-1
2/12/2020
4.0 – 5.0'
UNITS ug/Kg
VOCs <MDL
ACE 370
ACETHY 130
ANT 3,100
B(a)ANTH 1,800
B(a)PYR 1,200
B(b)FLA 1,600
B(g,h,i)PER 380
B(k)FLA 470
CHRYSENE 1,500
DI(A,H)ANT 71
FL 7,900
F 570
I(1,2,3-CD)PY 580
2-M 54
NAPH 200
Ph 6,100
Py 4,000
OTHER PNAs <MDL
PCBs <MDL
As 6,800
Ba 68,000
Cd 510
Cr 22,000
Cu 290,000
Pb 67,000
Hg 38
Ni 21,000
Th 3,500
U 1,300
Zn 290,000
pH 8.63
BOD 8
PHOSPHORUS 270,000

LEGEND:

- WATER
- CONCRETE
- SAND
- CLAY
- SANDY CLAY
- WOOD

NOTE:
- ALL SAMPLE DEPTHS ARE BELOW RIVER BOTTOM DEPTH
- SEE FIGURE 8 FOR ANALYTICAL LEGEND
- * COMPOSITE SAMPLE
- ESTIMATED EXTENT OF RIVER BANK FAILURE MATERIAL EXCEEDING TCLP LIMITS

10' 0 0 50' SCALE

PM ENVIRONMENTAL | Environmental & Engineering Services

FIGURE 11D

CONCEPTUAL CROSS SECTION A-A' WITH PROPOSED MATERIAL REMOVAL EXTENT WITH ANALYTICAL RESULTS

PROJ: 5851 WEST JEFFERSON AVENUE DETROIT, MI

THIS IS NOT A LEGAL SURVEY

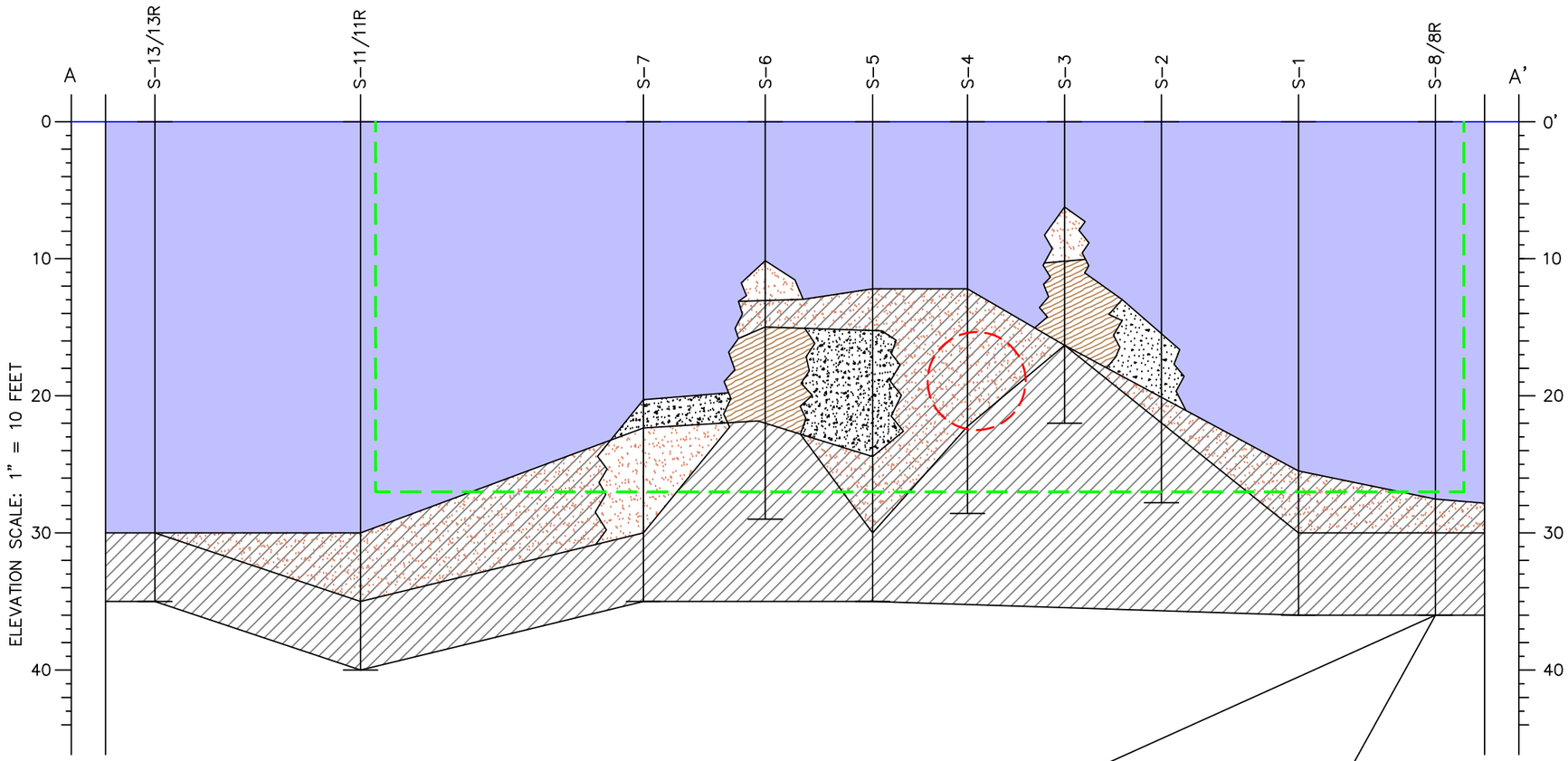
VERIFY SCALE 0 NOTED

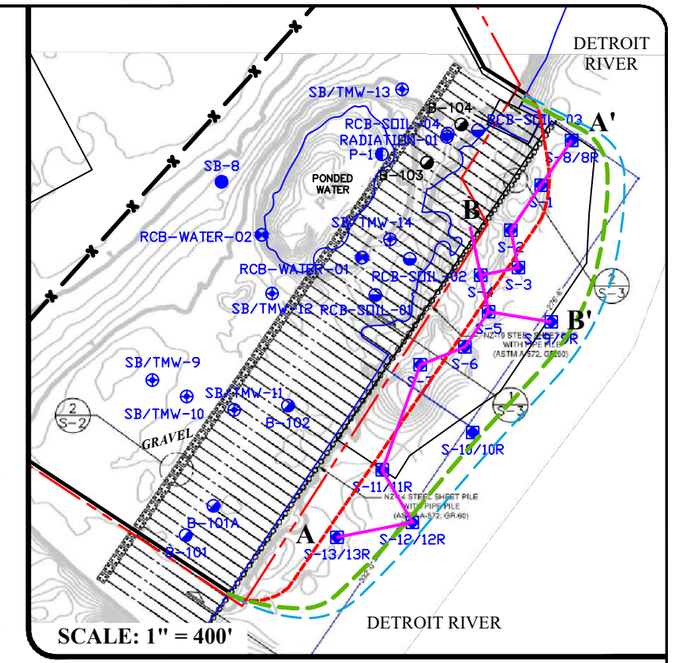
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRN BY: BP/ES | DATE: 3/18/2020

CHKD BY: AP/SZ | SCALE: NOTED

FILE NAME: 01-5303-3-001F00R01





WATER COLUMN THICKNESS (FEET ABS)											
27.0'											
S-8*		S-8R		S-8R		S-8R		S-8R		S-8R	
2/12/2020		2/17/2020		2/17/2020		2/17/2020		2/17/2020		2/17/2020	
3.0 – 8.0'		0.0 – 1.0'		1.0 – 2.0'		2.0 – 3.0'		3.0 – 4.0'		4.0 – 5.0'	
UNITS	ug/Kg	UNITS	ug/Kg	UNITS	ug/Kg	UNITS	ug/Kg	UNITS	ug/Kg	UNITS	ug/Kg
VOCs	<MDL	VOCs	<MDL	VOCs	<MDL	VOCs	<MDL	VOCs	<MDL	VOCs	<MDL
Ph	5.7	B(a)ANTH	5.1	PNAs	<MDL	PNAs	<MDL	FL	5.9	ACE	5.7
OTHER PNAs	<MDL	FL	5.0	As	8,100	As	9,900	Ph	15	ANT	11
PCBs	<MDL	Ph	5.0	Ba	84,000	Ba	130,000	OTHER PNAs	<MDL	FL	9.3
As	3,900	Py	5.1	Cr	18,000	Cr	21,000	PCBs	<MDL	F	11
Ba	61,000	OTHER PNAs	<MDL	Cu	17,000	Cu	25,000	As	4,900	2-M	9.3
Cr	15,000	PCBs	<MDL	Pb	9,900	Pb	10,000	Ba	87,000	Ph	35
Cu	21,000	As	8,300	Hg	21	Ni	25,000	Cr	17,000	Py	6.9
Pb	8,700	Ba	45,000	Ni	24,000	Th	5,500	Cu	48,000	OTHER PNAs	<MDL
Ni	20,000	Cr	18,000	Th	5,200	U	1,300	Pb	10,000	PCBs	<MDL
Th	4,400	Cu	22,000	U	1,300	Zn	45,000	Ni	23,000	As	6,300
U	1,100	Pb	11,000	Zn	41,000	pH	8.61	Th	4,800	Ba	66,000
Zn	50,000	Hg	87	pH	8.65	BOD	39	U	1,400	Cr	14,000
pH	8.63	Ni	23,000	BOD	<26	PHOSPHORUS	450,000	Zn	43,000	Cu	18,000
BOD	6.9	Th	4,600	PHOSPHORUS	450,000			pH	8.68	Pb	9,700
PHOSPHORUS	380,000	U	1,400					BOD	63	Ni	25,000
		Zn	45,000					PHOSPHORUS	490,000	Th	4,100
		pH	8.61							U	1,700
		BOD	<24							Zn	40,000
		PHOSPHORUS	380,000							pH	8.54
										BOD	<2.4
										PHOSPHORUS	450,000

WATER COLUMN THICKNESS (FEET ABS)			
27.0'			
S-8		A-3	
2/12/2020		2/12/2020	
2.0 – 3.0'		2.0 – 3.0'	
UNITS	ug/Kg	UNITS	ug/Kg
VOCs	<MDL	VOCs	<MDL
ACE	170	ACE	83
ACETHY	130	ACETHY	17
ANT	210	ANT	33
B(a)ANTH	880	B(a)ANTH	42
B(a)PYR	610	B(a)PYR	27
B(b)FLA	600	B(b)FLA	24
B(g,h,i)PER	140	B(g,h,i)PER	6.1
B(k)FLA	180	B(k)FLA	8.3
CHRYSENE	760	CHRYSENE	37
DI(A,H)ANT	34	FL	110
FL	1,200	F	55
F	160	I(1,2,3-CD)PY	5.9
I(1,2,3-CD)PY	190	Ph	54
2-M	11	Py	100
Ph	180	OTHER PNAs	<MDL
Py	1,100	PCBs	<MDL
OTHER PNAs	<MDL	As	5,700
PCBs	<MDL	Ba	61,000
As	4,000	Cr	14,000
Ba	45,000	Cu	33,000
Cr	11,000	Pb	16,000
Cu	46,000	Hg	40
Pb	78,000	Ni	27,000
Hg	63	Th	3,900
Ni	14,000	U	1,200
Th	2,600	Zn	55,000
U	710	pH	8.71
Zn	62,000	BOD	6.4
pH	8.62	PHOSPHORUS	410,000
BOD	7.4		
PHOSPHORUS	630,000		

LEGEND:

- WATER
- CONCRETE
- SAND
- CLAY
- SANDY CLAY
- WOOD

NOTE:
- ALL SAMPLE DEPTHS ARE BELOW RIVER BOTTOM DEPTH
- SEE FIGURE 8 FOR ANALYTICAL LEGEND
- * COMPOSITE SAMPLE
- ESTIMATED EXTENT OF RIVER BANK FAILURE MATERIAL EXCEEDING TCLP LIMITS

10'
0
0 SCALE 50'

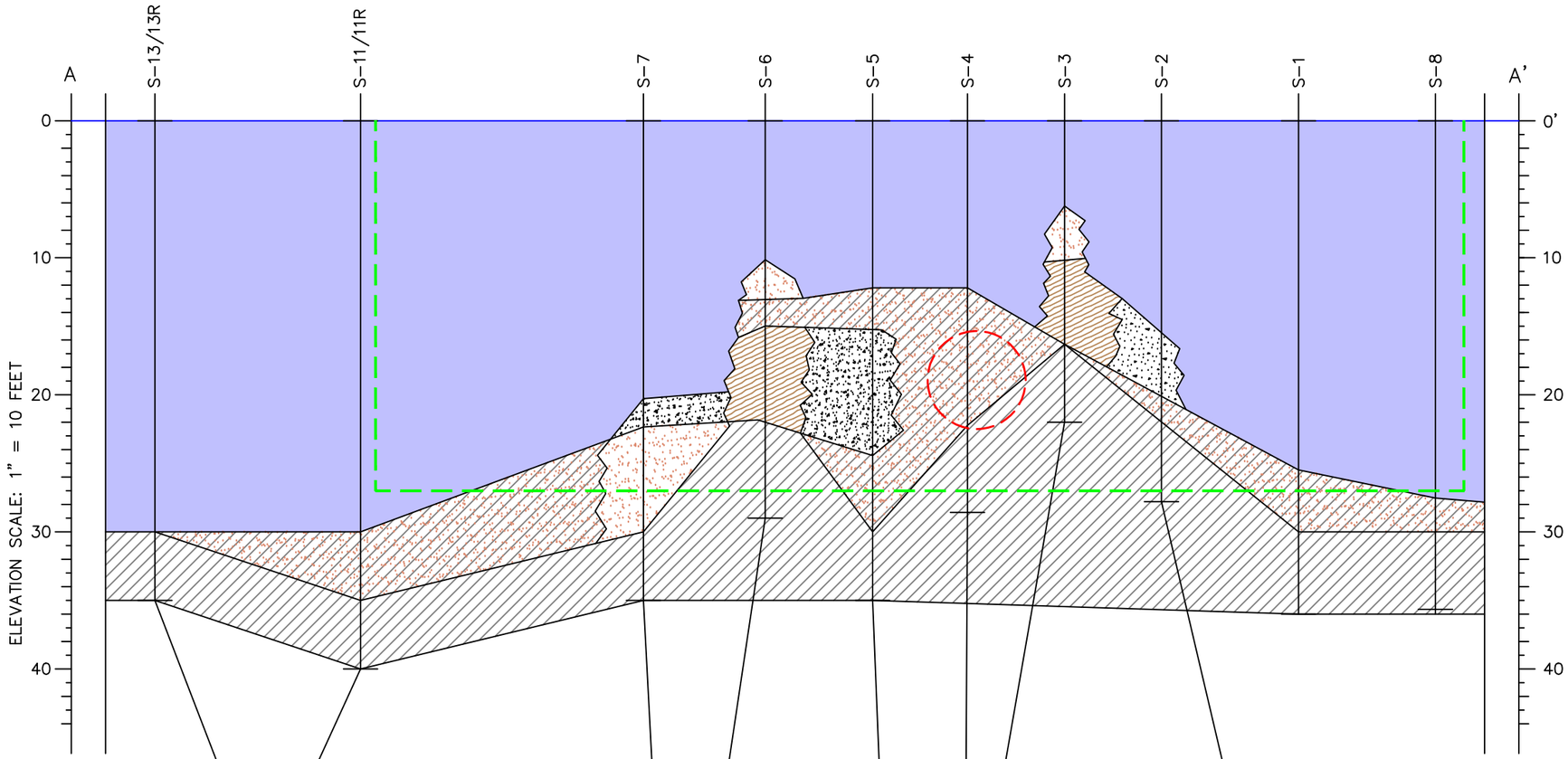
PM ENVIRONMENTAL | Environmental & Engineering Services

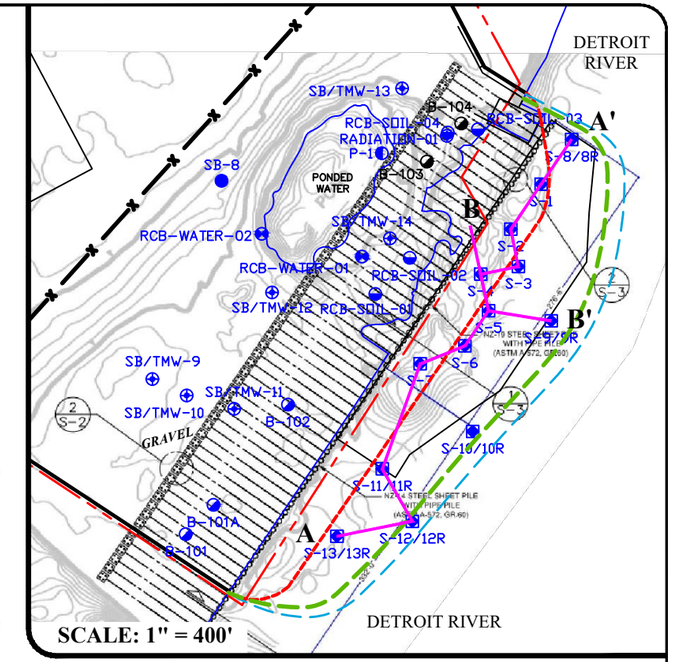
FIGURE 11E

CONCEPTUAL CROSS SECTION A-A' WITH PROPOSED MATERIAL REMOVAL EXTENT WITH ANALYTICAL RESULTS

PROJ: 5851 WEST JEFFERSON AVENUE DETROIT, MI

THIS IS NOT A LEGAL SURVEY	DRN BY: BP/ES	DATE: 3/18/2020
VERIFY SCALE 0 NOTED IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	CHKD BY: AP/SZ	SCALE: NOTED
	FILE NAME: 01-5303-3-001F00R01	





S-13	S-13R
2/11/2020	2/13/2020
0.0 – 5.0' SCREEN	0.0 – 1.0' SCREEN
UNITS mg/L	UNITS mg/L
TCLP As NA	TCLP As NA
TCLP Cd NA	TCLP Cd NA
TCLP Cr NA	TCLP Cr NA
TCLP Pb 0.48	TCLP Pb <0.050

S-11
2/11/2020
5.0 – 10.0' SCREEN
UNITS mg/L
TCLP As NA
TCLP Cd NA
TCLP Cr NA
TCLP Pb <0.050

S-7	S-7
2/13/2020	2/13/2020
2.0 – 3.0' SCREEN	8.0 – 9.0' SCREEN
UNITS mg/L	UNITS mg/L
TCLP As NA	TCLP As NA
TCLP Cd NA	TCLP Cd NA
TCLP Cr <0.050	TCLP Cr NA
TCLP Pb NA	TCLP Pb 0.16

S-5
2/12/2020
14.0 – 15.0' SCREEN
UNITS mg/L
TCLP As NA
TCLP Cd NA
TCLP Cr NA
TCLP Pb 0.052

S-3	S-3
2/13/2020	2/13/2020
3.0 – 4.0' SCREEN	7.0 – 8.0' SCREEN
UNITS mg/L	UNITS mg/L
TCLP As NA	TCLP As NA
TCLP Cd NA	TCLP Cd NA
TCLP Cr <0.050	TCLP Cr <0.050
TCLP Pb 0.29	TCLP Pb 0.73

S-2
2/12/2020
5.0 – 7.0' SCREEN
UNITS mg/L
TCLP As NA
TCLP Cd NA
TCLP Cr NA
TCLP Pb <0.050

S-6	A-6
2/13/2020	2/13/2020
3.0 – 4.0' SCREEN	3.0 – 4.0' SCREEN
UNITS mg/L	UNITS mg/L
TCLP As NA	TCLP As NA
TCLP Cd NA	TCLP Cd NA
TCLP Cr NA	TCLP Cr NA
TCLP Pb <0.050	TCLP Pb 0.23

S-4	S-4
2/13/2020	2/13/2020
2.0 – 3.0' SCREEN	7.0 – 8.0' SCREEN
UNITS mg/L	UNITS mg/L
TCLP As NA	TCLP As NA
TCLP Cd 0.25	TCLP Cd 1.2
TCLP Cr NA	TCLP Cr NA
TCLP Pb 0.28	TCLP Pb 1.1

LEGEND:

- WATER
- CONCRETE
- SAND
- CLAY
- SANDY CLAY
- WOOD

NOTE: ALL SAMPLE DEPTHS ARE BELOW RIVER BOTTOM DEPTH

SEE FIGURE 8 FOR ANALYTICAL LEGEND

* COMPOSITE SAMPLE

ESTIMATED EXTENT OF RIVER BANK FAILURE MATERIAL EXCEEDING TCLP LIMITS

10'
0
0 SCALE 50'

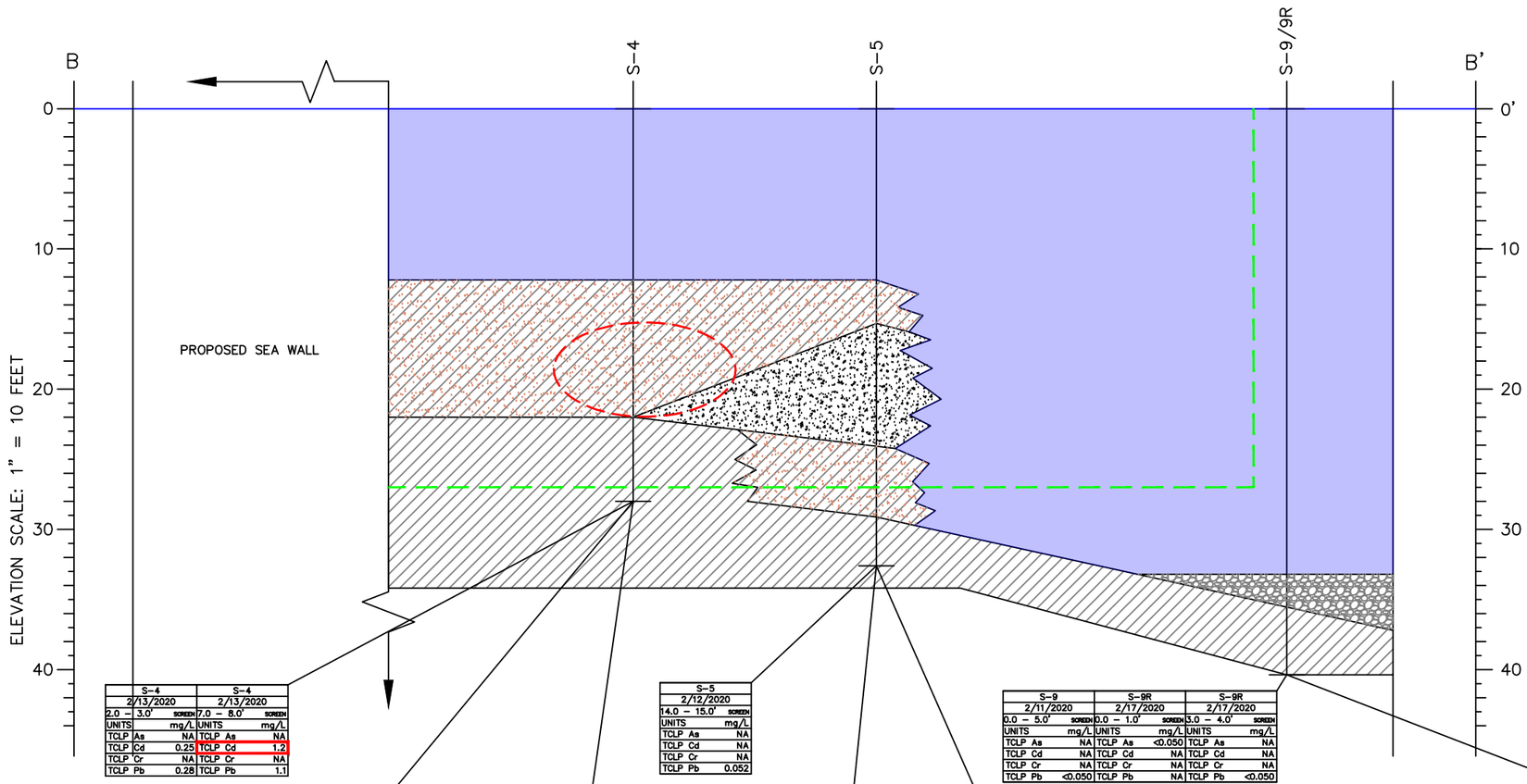
PM ENVIRONMENTAL | Environmental & Engineering Services

FIGURE 11F

CONCEPTUAL CROSS SECTION A-A' WITH PROPOSED MATERIAL REMOVAL EXTENT WITH ANALYTICAL RESULTS

PROJ: 5851 WEST JEFFERSON AVENUE DETROIT, MI

THIS IS NOT A LEGAL SURVEY	DRN BY: BP/ES	DATE: 3/18/2020
VERIFY SCALE 0 NOTED IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	CHKD BY: AP/SZ	SCALE: NOTED
	FILE NAME: 01-5303-3-001F00R01	



S-4	S-4
2/13/2020	2/13/2020
2.0 – 3.0' SCREEN	7.0 – 8.0' SCREEN
UNITS mg/L	UNITS mg/L
TCLP As NA	TCLP As NA
TCLP Cd 0.25	TCLP Cd 1.2
TCLP Cr NA	TCLP Cr NA
TCLP Pb 0.28	TCLP Pb 1.1

S-5
2/12/2020
14.0 – 15.0' SCREEN
UNITS mg/L
TCLP As NA
TCLP Cd NA
TCLP Cr NA
TCLP Pb 0.052

S-9	S-9R	S-9R
2/11/2020	2/17/2020	2/17/2020
0.0 – 5.0' SCREEN	0.0 – 1.0' SCREEN	3.0 – 4.0' SCREEN
UNITS mg/L	UNITS mg/L	UNITS mg/L
TCLP As NA	TCLP As <0.050	TCLP As NA
TCLP Cd NA	TCLP Cd NA	TCLP Cd NA
TCLP Cr NA	TCLP Cr NA	TCLP Cr NA
TCLP Pb <0.050	TCLP Pb NA	TCLP Pb <0.050

WATER COLUMN THICKNESS (FEET ABS)

S-4	S-4	S-4	S-4	S-4
2/13/2020	2/13/2020	2/13/2020	2/13/2020	2/13/2020
6.0'				
10.0 – 11.0'	11.0 – 12.0'	12.0 – 13.0'	13.0 – 14.0'	14.0 – 15.0'
UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg
VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL	VOCs <MDL
ACE 56	ACE 64	FL 5.4	ACE 23	ACE 25
ANT 14	ANT 60	Ph 6.1	ANT 18	ANT 5.9
B(a)ANTH 15	B(a)ANTH 55	OTHER PNAs <MDL	B(a)ANTH 12	FL 9.5
B(a)PYR 7.6	B(a)PYR 35	PCBs <MDL	B(a)PYR 7.1	F 12
B(b)FLA 6.4	B(b)FLA 38	As 10,000	B(b)FLA 8.9	Ph 21
CHRYSENE 9.0	B(g,h,i)PER 12	Ba 120,000	B(g,h,i)PER 5.4	Py 10
FL 25	B(k)FLA 13	Cr 22,000	CHRYSENE 9.8	OTHER PNAs <MDL
F 14	CHRYSENE 51	Cu 44,000	FL 29	PCBs <MDL
2-M 8.6	FL 110	Pb 18,000	F 13	As 55,000
Ph 42	F 37	Hg 47	Ph 49	Ba 110,000
Py 29	I(1,2,3-CD)PY 14	Ni 28,000	Py 34	Cr 24,000
OTHER PNAs <MDL	2-M 14	Th 6,100	OTHER PNAs <MDL	Cu 64,000
PCBs <MDL	NAPH 6.0	U 1,100	PCBs <MDL	Pb 30,000
As 8,800	Ph 170	Zn 74,000	As 9,200	Hg 110
Ba 120,000	Py 130	pH 8.14	Ba 160,000	Ni 33,000
Cr 22,000	OTHER PNAs <MDL	BOD <8,300	Cr 24,000	Th 6,500
Cu 53,000	PCBs <MDL	PHOSPHORUS 270,000	Cu 53,000	U 1,200
Pb 17,000	As 7,400		Pb 17,000	Zn 120,000
Hg 63	Ba 140,000		Ni 30,000	pH 7.97
Ni 27,000	Cr 22,000		Se 520	BOD <8,400
Th 6,400	Cu 25,000		Th 6,900	PHOSPHORUS 460,000
U 1,100	Pb 12,000		U 1,300	
Zn 79,000	Hg 620		Zn 91,000	
pH 10.6	Ni 29,000		pH 8.02	
BOD 140,000	Se 450		BOD <8,200	
PHOSPHORUS 480,000	Th 6,800		PHOSPHORUS 380,000	
	U 1,600			
	Zn 55,000			
	pH 7.85			
	BOD <8,300			
	PHOSPHORUS 310,000			

WATER COLUMN THICKNESS (FEET ABS)

S-4	S-4
2/13/2020	2/13/2020
12.0'	
2.0 – 3.0'	7.0 – 8.0'
UNITS ug/Kg	UNITS ug/Kg
T 89	T 70
1,2,4-TMB 69	1,2,4-TMB 44
OTHER VOCs <MDL	OTHER VOCs <MDL
ACE 1,600	ACE 290
ACETHY 82	ACETHY 20
ANT 1,200	ANT 350
B(a)ANTH 1,200	B(a)ANTH 640
B(a)PYR 780	B(a)PYR 590
B(b)FLA 730	B(b)FLA 520
B(g,h,i)PER 320	B(g,h,i)PER 330
B(k)FLA 210	B(k)FLA 110
CHRYSENE 1,000	CHRYSENE 590
DI(A,H)ANT 130	DI(A,H)ANT 170
FL 2,300	FL 980
F 890	F 220
I(1,2,3-CD)PY 350	I(1,2,3-CD)PY 310
2-M 400	2-M 110
NAPH 300	NAPH 110
Ph 3,300	Ph 1,000
Py 2,400	Py 990
OTHER PNAs <MDL	OTHER PNAs <MDL
PCBs <MDL	PCBs <MDL
As 23,000	As 8,600
Ba 80,000	Ba 74,000
Cd 200,000	Cd 89,000
Cr 91,000	Cr 31,000
Cu 4,800,000	Cu 5,000,000
Pb 380,000	Pb 1,200,000
Hg 670	Hg 160
Ni 15,000	Ni 17,000
Se 1,300	Se 570
Ag 2,100	Th 2,200
Th 2,400	U 790
U 910	Zn 2,800,000
Zn 5,300,000	pH 11.0
pH 10.6	BOD 110,000
BOD 140,000	PHOSPHORUS 280,000
PHOSPHORUS 480,000	

WATER COLUMN THICKNESS (FEET ABS)

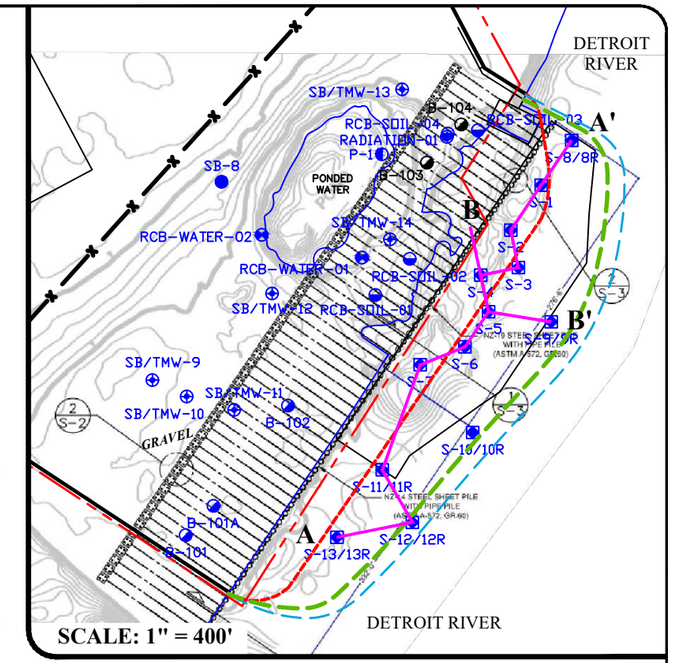
S-5	S-5
12.0'	
2/12/2020	2/12/2020
2.0 – 3.0'	14.0 – 15.0'
UNITS ug/Kg	UNITS ug/Kg
E 52	VOCs <MDL
ISOP 46	ACE 280
T 150	ACETHY 330
1,2,4-TMB 98	ANT 930
X 380	B(a)ANTH 470
OTHER VOCs <MDL	B(a)PYR 280
ACE 240	B(b)FLA 420
ACETHY 180	B(g,h,i)PER 110
ANT 1,000	B(k)FLA 110
B(a)ANTH 700	CHRYSENE 440
B(a)PYR 470	DI(A,H)ANT 22
B(b)FLA 760	FL 2,400
B(g,h,i)PER 220	F 1,100
B(k)FLA 180	I(1,2,3-CD)PY 130
CHRYSENE 690	2-M 690
DI(A,H)ANT 30	NAPH 460
FL 2,900	Ph 3,700
F 650	Py 1,200
I(1,2,3-CD)PY 260	OTHER PNAs <MDL
2-M 150	PCBs <MDL
NAPH 81	As 7,600
Ph 3,200	Ba 69,000
Py 1,400	Cd 7,300
OTHER PNAs <MDL	Cr 28,000
PCBs <MDL	Cu 1,700,000
As 4,900	Pb 210,000
Ba 86,000	Hg 70
Cd 11,000	Ni 17,000
Cr 17,000	Th 2,400
Cu 1,600,000	U 1,200
Pb 66,000	Zn 1,200,000
Hg 54	pH 11.1
Ni 14,000	BOD 7.8
Ag 630	PHOSPHORUS <270,000
Th 3,600	
U 910	
Zn 680,000	
pH 9.69	
BOD 14	
PHOSPHORUS 250,000	

WATER COLUMN THICKNESS (FEET ABS)

S-5*
12.0'
2/12/2020
17.0 – 22.0'
UNITS ug/Kg
VOCs <MDL
ANT 12
B(a)ANTH 7.1
FL 18
F 9.5
2-M 6.9
Ph 39
Py 11
OTHER PNAs <MDL
PCBs <MDL
As 6,200
Ba 76,000
Cr 13,000
Cu 17,000
Pb 9,300
Ni 22,000
Th 4,000
U 1,500
Zn 52,000
pH 8.68
BOD 8.4
PHOSPHORUS 320,000

WATER COLUMN THICKNESS (FEET ABS)

S-9*	S-9R	S-9R	S-9R	S-9R	S-9R
2/12/2020	2/17/2020	2/17/2020	2/17/2020	2/17/2020	2/17/2020
33.0'					
0.0 – 5.0'	0.0 – 1.0'	1.0 – 2.0'	2.0 – 3.0'	3.0 – 4.0'	4.0 – 5.0'
UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg	UNITS ug/Kg
E 760	E 68	E 48	1,2,4-TMB 130	E 50	1,2,4-TMB 150
ISOP 310	1,2,4-TMB 180	1,2,4-TMB 130	OTHER VOCs <MDL	1,2,4-TMB 150	OTHER VOCs <MDL
n-PROP 81	X 140	OTHER VOCs <MDL	ACE 2,800	OTHER VOCs <MDL	ACE 5,800
T 330	OTHER VOCs <MDL	ACE 9,700	ACETHY 130	ACE 1,500	ACETHY 290
1,2,4-TMB 3,300	ACE 1,600	ACETHY 450	ANT 1,700	ACETHY 53	ANT 3,400
1,3,5-TMB 1,700	ACETHY 63	ANT 5,800	B(a)ANTH 800	ANT 690	B(a)ANTH 1,900
X 2,800	ANT 760	B(a)ANTH 3,200	B(a)PYR 460	B(a)ANTH 310	B(a)PYR 1,100
OTHER VOCs <MDL	B(a)ANTH 320	B(a)PYR 1,800	B(b)FLA 470	B(a)PYR 160	B(b)FLA 1,100
ACE 55,000	B(a)PYR 170	B(b)FLA 1,800	B(g,h,i)PER 130	B(b)FLA 180	B(g,h,i)PER 310
ACETHY 4,300	B(b)FLA 180	B(g,h,i)PER 490	B(k)FLA 190	B(g,h,i)PER 49	B(k)FLA 440
ANT 47,000	B(g,h,i)PER 48	B(k)FLA 640	CHRYSENE 640	B(k)FLA 69	CHRYSENE 1,400
B(a)ANTH 20,000	B(k)FLA 73	CHRYSENE 2,400	DI(A,H)ANT 30	CHRYSENE 240	DI(A,H)ANT 85
B(a)PYR 9,900	CHRYSENE 260	DI(A,H)ANT 120	FL 2,200	DI(A,H)ANT 16	FL 5,100
B(b)FLA 13,000	DI(A,H)ANT 11	FL 7,800	F 2,100	FL 1,000	F 5,100
B(g,h,i)PER 1,900	FL 990	F 7,800	I(1,2,3-CD)PY 180	F 1,100	I(1,2,3-CD)PY 470
B(k)FLA 2,700	F 1,300	I(1,2,3-CD)PY 690	2-M 3,600	I(1,2,3-CD)PY 69	2-M 6,700
CHRYSENE 16,000	I(1,2,3-CD)PY 64	2-M 13,000	NAPH 7,200	2-M 1,600	NAPH 18,000
DI(A,H)ANT 690	2-M 2,000	NAPH 23,000	Ph 6,100	NAPH 4,100	Ph 15,000
FL 58,000	NAPH 4,500	Ph 22,000	Py 2,200	Ph 2,800	Py 4,600
F 52,000	Ph 3,100	Py 7,900	OTHER PNAs <MDL	Py 970	OTHER PNAs <MDL
I(1,2,3-CD)PY 2,900	Py 900	OTHER PNAs <MDL	PCBs <MDL	OTHER PNAs <MDL	PCBs <MDL
2-M 76,000	OTHER PNAs <MDL	PCBs <MDL	As 7,200	PCBs <MDL	As 6,800
NAPH 210,000	PCBs <MDL	As 7,200	Ba 67,000	As 6,500	Ba 71,000
Ph 130,000	As 640,000	Ba 67,000	Cr 14,000	Ba 110,000	Cd 190
Py 43,000	Ba 68,000	Cr 15,000	Cu 39,000	Cr 24,000	Cr 17,000
OTHER PNAs <MDL	Cd 510	Cu 27,000	Pb 17,000	Cu 33,000	Cu 40,000
PCBs <MDL	Cr 24,000	Pb 15,000	Hg 23	Pb 810,000	Pb 49,000
As 8,400	Cu 4,600,000	Hg 42	Ni 21,000	Hg 24	Hg 70
Ba 83,000	Pb 44,000	Ni 27,000	Th 3,500	Ni 30,000	Ni 28,000
Cd 590	Hg 80	Th 4,300	U 1,400	Th 4,400	Se 450
Cr 34,000	Ni 28,000	U 1,800	Zn 84,000	U 1,600	Th 4,300
Cu 160,000	Se 790	Zn 77,000	pH 8.41	Zn 78,000	U 2,100
Pb 150,000	Ag 4,100	pH 8.53	BOD 240	pH 8.45	Zn 87,000
Hg 410	Th 6,500	BOD 28	PHOSPHORUS 420,000	BOD 100	pH 8.40
Ni 24,000	U 1,500	PHOSPHORUS 370,000		PHOSPHORUS 390,000	BOD 280
Th 2,900	Zn 420,000				PHOSPHORUS 310,000
U 1,100	pH 8.53				
Zn 180,000	BOD 68				
pH 8.10	PHOSPHORUS 460,000				
BOD 31					
PHOSPHORUS 500,000					



LEGEND:

- WATER
- CONCRETE
- SAND
- CLAY
- SANDY CLAY
- GRAVEL

NOTE: ALL SAMPLE DEPTHS ARE BELOW RIVER BOTTOM DEPTH

SEE FIGURE 8 FOR ANALYTICAL LEGEND

* COMPOSITE SAMPLE

10' 0 0 20' SCALE

PM ENVIRONMENTAL — Environmental & Engineering Services

FIGURE 12

CONCEPTUAL CROSS SECTION B-B' WITH PROPOSED MATERIAL REMOVAL EXTENT WITH ANALYTICAL RESULTS

PROJ: 5851 WEST JEFFERSON AVENUE DETROIT, MI

THIS IS NOT A LEGAL SURVEY	DRN BY: BP/ES	DATE: 3/18/2020
VERIFY SCALE 0 NOTED IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	CHKD BY: AP/SZ	SCALE: NOTED
	FILE NAME: 01-5303-3-001F00R01	

Tables

PM ENVIRONMENTAL Environmental & Engineering Services

TABLE 1A
SUMMARY OF SOIL ANALYTICAL RESULTS
ON LAND SAMPLES
VOCs
5851 W JEFFERSON AVENUE, DETROIT, MICHIGAN
PM PROJECT #01-5303-3-0003

Volatile Organic Compounds (VOCs) (µg/Kg)			1,1-Dichloroethane	Ethyl benzene	Isopropyl benzene	n-Propylbenzene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Xylenes	Other VOCs
Chemical Abstract Service Number (CAS#)			75343	100414	98828	103651	108883	95636	108678	1330207	Various
Sample ID	**Sample Date**	**Sample Depth (feet bgs)**	**VOCs**								
SB-12	2/10/2020	4.0-5.0	<40	<40	<40	<40	<40	<40	<130	<120	<MDL
SB-12	2/10/2020	9.0-10.0	<45	<45	<45	<45	61	<45	<150	<140	<MDL
SB-13	2/10/2020	3.5-4.5	<47	<47	<47	<47	<47	<47	<160	<140	<MDL
SB-13	2/10/2020	4.5-5.5	100	<74	<74	<74	<74	<74	<250	<220	<MDL
SB-14	2/10/2020	1.5-2.5	<42	<42	<42	<42	<42	<42	<140	<120	<MDL
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50) **Generic Soil Cleanup Criteria Tables 2 and 3: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, December 30, 2013**											
Residential (µg/Kg)											
Statewide Default Background Levels			NA	NA	NA	NA	NA	NA	NA	NA	Various
Drinking Water Protection (Res DWP)			18,000	1,500	91,000	1,600	16,000	2,100	1,800	5,600	Various
Groundwater Surface Water Interface Protection (GSIP)			15,000	360	3,200	ID	5,400	570	1,100	980	Various
Soil Volatilization to Indoor Air Inhalation (Res SVII)			2.30E+05	87,000	4.0E+05 {C}	ID	3.3E+05 {C}	4.3E+06 {C}	2.6E+06 {C}	6.3E+06 {C}	Various
Ambient Air Infinite Source Volatile Soil Inhalation (Res VSI)			2.10E+06	7.20E+05	1.70E+06	ID	2.80E+06	2.10E+07	1.60E+07	4.60E+07	Various
Ambient Air Finite VSI for 5 Meter Source Thickness			5.90E+06	1.00E+06	1.70E+06	ID	5.10E+06	5.00E+08	3.80E+08	6.10E+07	Various
Ambient Air Finite VSI for 2 Meter Source Thickness			1.40E+07	2.20E+06	2.80E+06	ID	1.20E+07	5.00E+08	3.80E+08	1.30E+08	Various
Ambient Air Particulate Soil Inhalation (Res PSI)			3.30E+10	1.00E+10	5.80E+09	1.30E+09	2.70E+10	8.20E+10	8.20E+10	2.90E+11	Various
Direct Contact (Res DC)			2.7E+07 {C}	2.2E+07 {C}	2.5E+07 {C}	2.50E+06	5.0E+07 {C}	3.2E+07 {C}	3.2E+07 {C}	4.1E+08 {C}	Various
Nonresidential (µg/Kg)											
Drinking Water Protection (Nonres DWP)			50,000	1,500	2.60E+05	4,600	16,000	2,100	1,800	5,600	Various
Soil Volatilization to Indoor Air Inhalation (Nonres SVII)			4.30E+05	4.6E+05 {C}	7.3E+05 {C}	ID	6.1E+05 {C}	8.0E+06 {C}	4.8E+06 {C}	1.2E+07 {C}	Various
Ambient Air Infinite Source Volatile Soil Inhalation (Nonres VSI)			2.50E+06	2.40E+06	2.00E+06	ID	3.30E+06	2.50E+07	1.90E+07	5.40E+07	Various
Ambient Air Finite VSI for 5 Meter Source Thickness			6.00E+06	3.10E+06	2.00E+06	ID	3.60E+07	6.00E+08	4.60E+08	6.50E+07	Various
Ambient Air Finite VSI for 2 Meter Source Thickness			1.40E+07	6.50E+06	3.00E+06	ID	3.60E+07	6.00E+08	4.60E+08	1.30E+08	Various
Ambient Air Particulate Soil Inhalation (Nonres PSI)			1.50E+10	1.30E+10	2.60E+09	5.90E+08	1.20E+10	3.60E+10	3.60E+10	1.30E+11	Various
Direct Contact (Nonres DC)			8.7E+07 {C}	7.1E+07 {C}	8.0E+07 {C}	8.00E+06	1.6E+08 {C}	1.0E+08 {C}	1.0E+08 {C}	1.0E+09 {C}	Various
Screening Levels (µg/Kg)											
Soil Saturation Concentration Screening Levels (Csat)			8.90E+05	1.40E+05	3.90E+05	1.00E+07	2.50E+05	1.10E+05	94,000	1.50E+05	Various
USEPA Removal Management Levels (RMLs) **Industrial Soil RML Table, November 2019**											
Industrial Soil (µg/Kg)											
EPA RML (THQ 3.0)			7.00E+08	6.10E+07	NL	7.30E+07	1.40E+08	5.30E+06	4.50E+06	7.50E+06	Various

	Nonresidential Criterion Exceeded
BOLD	Value Exceeds Nonresidential Criterion
bgs	Below Ground Surface (feet)
100 {M}	Other Alpha notation, please refer to EGLE Footnotes R 299.49 Footnotes for Generic Cleanup Crtieria Tables, December 30, 2013
NA	Not Applicable
NL	Not Listed
ID	Insufficient Data

TABLE 1B
SUMMARY OF ANALYTICAL RESULTS
BANK FAILURE MATERIAL SAMPLES
VOCs
5851 W JEFFERSON AVENUE, DETROIT, MICHIGAN
PM PROJECT #01-5303-3-0003

Volatile Organic Compounds (VOCs) (µg/Kg)				1,1-Dichloroethane	Ethyl benzene	Isopropyl benzene	n-Propylbenzene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Xylenes	Other VOCs
Chemical Abstract Service Number (CAS#)				75343	100414	98828	103651	108883	95636	108678	1330207	Various
Sample ID	**Sample Date**	**Thickness of Water Column (feet ags)**	**Sample Depth (feet bgs)**	**VOCs**								
S-1	2/12/2020	25.0	4.0-5.0	<35	<35	<35	<35	<35	<35	<120	<110	<MDL
S-2	2/12/2020	12.0-15.0	5.0-7.0	<44	48	<44	<44	180	64	<150	150	<MDL
S-3	2/13/2020	6.0	3.0-4.0	<79	<79	<79	<79	98	<79	<260	<240	<MDL
S-3	2/13/2020		7.0-8.0	<110	<110	480	<110	200	<110	<350	<320	<MDL
S-4	2/13/2020	12.0	2.0-3.0	<49	<49	<49	<49	89	69	<160	<150	<MDL
S-4	2/13/2020		7.0-8.0	<44	<44	<44	<44	70	44	<150	<130	<MDL
S-5	2/12/2020	12.00	2.0-3.0	<40	52	46	<40	150	98	<130	380	<MDL
S-5	2/12/2020		14.0-15.0	<38	<38	<38	<38	<38	<38	<130	<110	<MDL
S-6	2/13/2020	10.0-12.0	3.0-4.0	<73	<73	<73	<73	180	89	<240	240	<MDL
A-6 (Co-locate)				<48	<48	<48	<48	110	56	<160	<140	<MDL
S-6	2/13/2020		8.0-9.0	<50	<50	<50	<50	<50	<50	<170	<150	<MDL
S-7	2/13/2020	20.0	2.0-3.0	<48	<48	<48	<48	<48	<48	<160	<150	<MDL
S-7	2/13/2020		8.0-9.0	<48	<48	<48	<48	<48	<48	<160	<150	<MDL
S-8	2/12/2020	27.0	2.0-3.0	<45	<45	<45	<45	<45	<45	<150	<140	<MDL
A-3 (Co-locate)				<40	<40	<40	<40	<40	<40	<130	<120	<MDL
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50)												
Generic Soil Cleanup Criteria Tables 2 and 3: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, December 30, 2013												
Residential (µg/Kg)												
Statewide Default Background Levels				NA	NA	NA	NA	NA	NA	NA	NA	Various
Drinking Water Protection (Res DWP)				18,000	1,500	91,000	1,600	16,000	2,100	1,800	5,600	Various
Groundwater Surface Water Interface Protection (GSIP)				15,000	360	3,200	ID	5,400	570	1,100	980	Various
Soil Volatilization to Indoor Air Inhalation (Res SVII)				2.30E+05	87,000	4.0E+05 {C}	ID	3.3E+05 {C}	4.3E+06 {C}	2.6E+06 {C}	6.3E+06 {C}	Various
Ambient Air Infinite Source Volatile Soil Inhalation (Res VSI)				2.10E+06	7.20E+05	1.70E+06	ID	2.80E+06	2.10E+07	1.60E+07	4.60E+07	Various
Ambient Air Finite VSI for 5 Meter Source Thickness				5.90E+06	1.00E+06	1.70E+06	ID	5.10E+06	5.00E+08	3.80E+08	6.10E+07	Various
Ambient Air Finite VSI for 2 Meter Source Thickness				1.40E+07	2.20E+06	2.80E+06	ID	1.20E+07	5.00E+08	3.80E+08	1.30E+08	Various
Ambient Air Particulate Soil Inhalation (Res PSI)				3.30E+10	1.00E+10	5.80E+09	1.30E+09	2.70E+10	8.20E+10	8.20E+10	2.90E+11	Various
Direct Contact (Res DC)				2.7E+07 {C}	2.2E+07 {C}	2.5E+07 {C}	2.50E+06	5.0E+07 {C}	3.2E+07 {C}	3.2E+07 {C}	4.1E+08 {C}	Various
Nonresidential (µg/Kg)												
Drinking Water Protection (Nonres DWP)				50,000	1,500	2.60E+05	4,600	16,000	2,100	1,800	5,600	Various
Soil Volatilization to Indoor Air Inhalation (Nonres SVII)				4.30E+05	4.6E+05 {C}	7.3E+05 {C}	ID	6.1E+05 {C}	8.0E+06 {C}	4.8E+06 {C}	1.2E+07 {C}	Various
Ambient Air Infinite Source Volatile Soil Inhalation (Nonres VSI)				2.50E+06	2.40E+06	2.00E+06	ID	3.30E+06	2.50E+07	1.90E+07	5.40E+07	Various
Ambient Air Finite VSI for 5 Meter Source Thickness				6.00E+06	3.10E+06	2.00E+06	ID	3.60E+07	6.00E+08	4.60E+08	6.50E+07	Various
Ambient Air Finite VSI for 2 Meter Source Thickness				1.40E+07	6.50E+06	3.00E+06	ID	3.60E+07	6.00E+08	4.60E+08	1.30E+08	Various
Ambient Air Particulate Soil Inhalation (Nonres PSI)				1.50E+10	1.30E+10	2.60E+09	5.90E+08	1.20E+10	3.60E+10	3.60E+10	1.30E+11	Various
Direct Contact (Nonres DC)				8.7E+07 {C}	7.1E+07 {C}	8.0E+07 {C}	8.00E+06	1.6E+08 {C}	1.0E+08 {C}	1.0E+08 {C}	1.0E+09 {C}	Various
Screening Levels (µg/Kg)												
Soil Saturation Concentration Screening Levels (Csat)				8.90E+05	1.40E+05	3.90E+05	1.00E+07	2.50E+05	1.10E+05	94,000	1.50E+05	Various
USEPA Removal Management Levels (RMLs) Industrial Soil RML Table, November 2019												
Industrial Soil (µg/Kg)												
EPA RML (THQ 3.0)				7.00E+08	6.10E+07	NL	7.30E+07	1.40E+08	5.30E+06	4.50E+06	7.50E+06	Various

	Nonresidential Criterion Exceeded
BOLD	Value Exceeds Nonresidential Criterion
bgs	Below Ground Surface (feet)
100 {M}	Other Alpha notation, please refer to EGLE Footnotes R 299.49 Footnotes for Generic Cleanup Crtieria Tables, December 30, 2013
NA	Not Applicable
NL	Not Listed
ID	Insufficient Data
ags	Above Ground Surface (feet)

TABLE 1C
SUMMARY OF ANALYTICAL RESULTS
RIVER SEDIMENT SAMPLES
VOCs
5851 W JEFFERSON AVENUE, DETROIT, MICHIGAN
PM PROJECT #01-5303-3-0003

Volatile Organic Compounds (VOCs) (µg/Kg)				1,1-Dichloroethane	Ethyl benzene	Isopropyl benzene	n-Propylbenzene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Xylenes	Other VOCs
Chemical Abstract Service Number (CAS#)				75343	100414	98828	103651	108883	95636	108678	1330207	Various
Sample ID	**Sample Date**	**Thickness of Water Column (feet ags)**	**Sample Depth (feet bgs)**	**VOCs**								
S-1	2/12/2020	25.0	5.0-10.0 (Composite Core)	<36	<36	<36	<36	<36	<36	<120	<110	<MDL
S-2	2/12/2020	12.0-15.0	7.0-12.0 (Composite Core)	<44	<44	<44	<44	<44	<44	<150	<130	<MDL
S-3	2/13/2020	6.0	10.0-11.0	<50	<50	<50	<50	<50	<50	<170	<150	<MDL
S-3	2/13/2020		11.0-12.0	<53	98	69	<53	84	<53	<180	<160	<MDL
S-3	2/13/2020		12.0-13.0	<54	210	<54	<54	250	<54	<180	<160	<MDL
S-3	2/13/2020		13.0-14.0	<43	<43	<43	<43	<43	<43	<140	<130	<MDL
S-3	2/13/2020		14.0-15.0	<52	<52	<52	<52	<52	<52	<170	<150	<MDL
S-4	2/13/2020	12.0	10.0-11.0	<43	<43	<43	<43	<43	<43	<140	<130	<MDL
S-4	2/13/2020		11.0-12.0	<43	<43	<43	<43	<43	<43	<140	<130	<MDL
S-4	2/13/2020		12.0-13.0	<44	<44	<44	<44	<44	<44	<150	<130	<MDL
S-4	2/13/2020		13.0-14.0	<42	<42	<42	<42	<42	<42	<140	<130	<MDL
S-4	2/13/2020		14.0-15.0	<43	<43	<43	<43	<43	<43	<140	<130	<MDL
S-5	2/12/2020	12.0	17.0-22.0 (Composite Core)	<36	<36	<36	<36	<36	<36	<120	<110	<MDL
S-6	2/13/2020	10.0-12.0	12.0-13.0	<39	<39	<39	<39	<39	<39	<130	<120	<MDL
S-6	2/13/2020		13.0-14.0	<43	<43	<43	<43	<43	<43	<140	<130	<MDL
S-6	2/13/2020		14.0-15.0	<42	<42	<42	<42	<42	<42	<140	<130	<MDL
S-6	2/13/2020		15.0-16.0	<39	<39	<39	<39	<39	<39	<130	<120	<MDL
S-6	2/13/2020		16.0-17.0	<41	<41	<41	<41	<41	<41	<140	<120	<MDL
S-7	2/13/2020	20.0	10.0-11.0	<43	<43	<43	<43	<43	<43	<140	<130	<MDL
S-7	2/13/2020		11.0-12.0	<41	<41	<41	<41	<41	<41	<140	<120	<MDL
S-7	2/13/2020		12.0-13.0	<41	<41	<41	<41	<41	<41	<140	<120	<MDL
S-7	2/13/2020		13.0-14.0	<38	<38	<38	<38	<38	<38	<130	<110	<MDL
S-7	2/13/2020		14.0-15.0	<41	<41	<41	<41	<41	<41	<140	<120	<MDL
S-8	2/12/2020	27.0	3.0-8.0 (Composite Core)	<44	<44	<44	<44	<44	<44	<150	<130	<MDL
S-8R	2/17/2020		0-1.0	<41	<41	<41	<41	<41	<41	<140	<120	<MDL
S-8R	2/17/2020		1.0-2.0	<50	<50	<50	<50	<50	<50	<170	<150	<MDL
S-8R	2/17/2020		2.0-3.0	<48	<48	<48	<48	<48	<48	<160	<140	<MDL
S-8R	2/17/2020		3.0-4.0	<54	<54	<54	<54	<54	<54	<180	<160	<MDL
S-8R	2/17/2020		4.0-5.0	<38	<38	<38	<38	<38	<38	<130	<110	<MDL
S-9	2/11/2020	33.0	0-5.0 (Composite Core)	<35	**760**	310	81	330	**3,300**	**1,700**	**2,800**	<MDL
S-9R	2/17/2020		0-1.0	<43	68	<43	<43	<43	180	<140	140	<MDL
S-9R	2/17/2020		1.0-2.0	<40	48	<40	<40	<40	130	<130	<120	<MDL
S-9R	2/17/2020		2.0-3.0	<47	<47	<47	<47	<47	130	<160	<140	<MDL
S-9R	2/17/2020		3.0-4.0	<49	50	<49	<49	<49	150	<160	<150	<MDL
S-9R	2/17/2020		4.0-5.0	<53	<53	<53	<53	<53	150	<180	<160	<MDL
S-10	2/11/2020	33.0	0-5.0 (Composite Core)	<41	<41	<41	<41	<41	<41	<140	<120	<MDL
S-10R	2/17/2020		0-1.0	<56	<56	<56	<56	<56	<56	<190	<170	<MDL
A-8 (Co-locate)				<80	<80	<80	<80	<80	<80	<270	<240	<MDL
S-10R	2/17/2020		1.0-2.0	<43	<43	<43	<43	<43	<43	<140	<130	<MDL
S-10R	2/17/2020		2.0-3.0	<46	<46	<46	<46	<46	<46	<150	<140	<MDL
S-10R	2/17/2020		3.0-4.0	<37	<37	<37	<37	<37	<37	<120	<110	<MDL
S-10R	2/17/2020		4.0-5.0	<39	<39	<39	<39	<39	<39	<130	<120	<MDL
S-11	2/11/2020	30.0	0-5.0 (Composite Core)	<61	<61	<61	<61	<61	<61	<200	<180	<MDL
S-11	2/11/2020		5.0-10.0 (Composite Core)	<45	<45	<45	<45	<45	<45	<150	<130	<MDL
S-11R	2/13/2020		5.0-6.0	<40	<40	<40	<40	<40	<40	<130	<120	<MDL
S-11R	2/13/2020		6.0-7.0	<39	<39	<39	<39	<39	<39	<130	<120	<MDL
S-11R	2/13/2020		7.0-8.0	<41	<41	<41	<41	<41	<41	<140	<120	<MDL
S-11R	2/13/2020		8.0-9.0	<42	<42	<42	<42	<42	<42	<140	<130	<MDL
S-11R	2/13/2020		9.0-10.0	<39	<39	<39	<39	<39	<39	<130	<120	<MDL
S-12	2/11/2020	33.0	0-5.0 (Composite Core)	<55	<55	<55	<55	<55	<55	<180	<170	<MDL
S-12R	2/17/2020		0-1.0	<44	<44	<44	<44	<44	<44	<150	<130	<MDL
S-12R	2/17/2020		1.0-2.0	<60	<60	<60	<60	<60	<60	<200	<180	<MDL
A-9 (Co-locate)				<58	<58	<58	<58	<58	<58	<190	<170	<MDL
S-12R	2/17/2020		2.0-3.0	<52	<52	<52	<52	<52	<52	<170	<150	<MDL
S-12R	2/17/2020		3.0-4.0	<42	<42	<42	<42	<42	<42	<140	<130	<MDL
S-12R	2/17/2020		4.0-5.0	<39	<39	<39	<39	<39	<39	<130	<120	<MDL
S-13	2/11/2020	29.0	0-5.0 (Composite Core)	<56	<56	<56	<56	<56	<56	<190	<170	<MDL
S-13R	2/13/2020		0-1.0	<54	<54	<54	<54	<54	<54	<180	<160	<MDL
S-13R	2/13/2020		1.0-2.0	<48	<48	<48	<48	<48	<48	<160	<140	<MDL
A-7 (Co-locate)				<53	<53	<53	<53	<53	<53	<180	<160	<MDL
S-13R	2/13/2020		2.0-3.0	<38	<38	<38	<38	<38	<38	<130	<110	<MDL
S-13R	2/13/2020		3.0-4.0	<41	<41	<41	<41	<41	<41	<140	<120	<MDL
S-13R	2/13/2020		4.0-5.0	<43	<43	<43	<43	<43	<43	<140	<130	<MDL
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50)												
Generic Soil Cleanup Criteria Tables 2 and 3: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, December 30, 2013												
Residential (µg/Kg)												
Statewide Default Background Levels				NA	NA	NA	NA	NA	NA	NA	NA	Various
Drinking Water Protection (Res DWP)				18,000	1,500	91,000	1,600	16,000	2,100	1,800	5,600	Various
Groundwater Surface Water Interface Protection (GSIP)				15,000	360	3,200	ID	5,400	570	1,100	980	Various
Soil Volatilization to Indoor Air Inhalation (Res SVII)				2.30E+05	87,000	4.0E+05 {C}	ID	3.3E+05 {C}	4.3E+06 {C}	2.6E+06 {C}	6.3E+06 {C}	Various
Ambient Air Infinite Source Volatile Soil Inhalation (Res VSI)				2.10E+06	7.20E+05	1.70E+06	ID	2.80E+06	2.10E+07	1.60E+07	4.60E+07	Various
Ambient Air Finite VSI for 5 Meter Source Thickness				5.90E+06	1.00E+06	1.70E+06	ID	5.10E+06	5.00E+08	3.80E+08	6.10E+07	Various
Ambient Air Finite VSI for 2 Meter Source Thickness				1.40E+07	2.20E+06	2.80E+06	ID	1.20E+07	5.00E+08	3.80E+08	1.30E+08	Various
Ambient Air Particulate Soil Inhalation (Res PSI)				3.30E+10	1.00E+10	5.80E+09	1.30E+09	2.70E+10	8.20E+10	8.20E+10	2.90E+11	Various
Direct Contact (Res DC)				2.7E+07 {C}	2.2E+07 {C}	2.5E+07 {C}	2.50E+06	5.0E+07 {C}	3.2E+07 {C}	3.2E+07 {C}	4.1E+08 {C}	Various
Nonresidential (µg/Kg)												
Drinking Water Protection (Nonres DWP)				50,000	1,500	2.60E+05	4,600	16,000	2,100	1,800	5,600	Various
Soil Volatilization to Indoor Air Inhalation (Nonres SVII)				4.30E+05	4.6E+05 {C}	7.3E+05 {C}	ID	6.1E+05 {C}	8.0E+06 {C}	4.8E+06 {C}	1.2E+07 {C}	Various
Ambient Air Infinite Source Volatile Soil Inhalation (Nonres VSI)				2.50E+06	2.40E+06	2.00E+06	ID	3.30E+06	2.50E+07	1.90E+07	5.40E+07	Various
Ambient Air Finite VSI for 5 Meter Source Thickness				6.00E+06	3.10E+06	2.00E+06	ID	3.60E+07	6.00E+08	4.60E+08	6.50E+07	Various
Ambient Air Finite VSI for 2 Meter Source Thickness				1.40E+07	6.50E+06	3.00E+06	ID	3.60E+07	6.00E+08	4.60E+08	1.30E+08	Various
Ambient Air Particulate Soil Inhalation (Nonres PSI)				1.50E+10	1.30E+10	2.60E+09	5.90E+08	1.20E+10	3.60E+10	3.60E+10	1.30E+11	Various
Direct Contact (Nonres DC)				8.7E+07 {C}	7.1E+07 {C}	8.0E+07 {C}	8.00E+06	1.6E+08 {C}	1.0E+08 {C}	1.0E+08 {C}	1.0E+09 {C}	Various
Screening Levels (µg/Kg)												
Soil Saturation Concentration Screening Levels (Csat)				8.90E+05	1.40E+05	3.90E+05	1.00E+07	2.50E+05	1.10E+05	94,000	1.50E+05	Various
USEPA Removal Management Levels (RMLs) Industrial Soil RML Table, November 2019												
Industrial Soil (µg/Kg)												
EPA RML (THQ 3.0)				7.00E+08	6.10E+07	NL	7.30E+07	1.40E+08	5.30E+06	4.50E+06	7.50E+06	Various

	Nonresidential Criterion Exceeded
BOLD	Value Exceeds Nonresidential Criterion
bgs	Below Ground Surface (feet)
100 {M}	Other Alpha notation, please refer to EGLE Footnotes R 299.49 Footnotes for Generic Cleanup Crtieria Tables, December 30, 2013
NA	Not Applicable
NL	Not Listed
ID	Insufficient Data
ags	Above Ground Surface (ags)

TABLE 2A
SUMMARY OF SOIL ANALYTICAL RESULTS
ON LAND SAMPLES
PNAs, PCBs
5851 WEST JEFFERSON AVENUE, DETROIT, MICHIGAN
PM PROJECT #01-5303-3-0003

Polynuclear Aromantic Compounds (PNAs) and Polychlorinated Biphenyls (PCBs) (µg/Kg)			Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene	Polychlorinated Biphenyls
Chemical Abstract Service Number (CAS#)			83329	208968	120127	56553	50328	205992	191242	207089	218019	53703	206440	86737	193395	91576	91203	85018	129000	1336363
Sample ID	**Sample Date**	**Sample Depth (feet bgs)**	**PNAs**																	**PCBs**
SB-12	2/10/2020	4.0-5.0	1,000	17	1,300	1,500	980	1,300	410	490	1,200	85	4,800	910	630	330	**1,400**	**5,600**	2,400	<MDL
SB-12	2/10/2020	9.0-10.0	730	<27	1,000	1,200	750	750	280	250	1,200	55	2,700	540	300	58	<27	**3,600**	3,000	<MDL
SB-13	2/10/2020	3.5-4.5	55	<15	110	260	220	380	200	130	340	31	670	38	200	<15	<15	390	520	1,100
SB-13	2/10/2020	4.5-5.5	<6.4	<6.4	<6.4	20	16	22	10	8.8	25	<6.4	42	<6.4	11	<6.4	17	26	29	<MDL
SB-14	2/10/2020	1.5-2.5	<4.5	19	37	210	130	220	230	200	200	39	90	<4.5	130	<4.5	<4.5	30	100	<MDL
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50)																				
Generic Soil Cleanup Criteria Tables 2 and 3: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, June 25, 2018																				
Residential (µg/Kg)																				
Statewide Default Background Levels			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Drinking Water Protection (Res DWP)			3.00E+05	5,900	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.30E+05	3.90E+05	NLL	57,000	35,000	56,000	4.80E+05	NLL
Groundwater Surface Water Interface Protection (GSIP)			8,700	ID	ID	NLL	NLL	NLL	NLL	NLL	NLL	NLL	5,500	5,300	NLL	4,200	730	2,100	ID	NLL
Soil Volatilization to Indoor Air Inhalation (Res SVII)			1.9E+08	1.60E+06	1.0E+9 {D}	NLV	NLV	ID	NLV	NLV	ID	NLV	1.0E+9 {D}	5.8E+08	NLV	2.70E+06	2.50E+05	2.8E+06	1.0E+9 {D}	3.0E+06
Ambient Air Infinite Source Volatile Soil Inhalation (Res VSI)			8.1E+07	2.2E+06	1.4E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	7.40E+08	1.3E+08	NLV	1.50E+06	3.00E+05	1.60E+05	6.5E+08	2.40E+05
Ambient Air Finite VSI for 5 Meter Source Thickness			8.1E+07	2.2E+06	1.4E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	7.4E+08	1.3E+08	NLV	1.50E+06	3.00E+05	1.60E+05	6.5E+08	7.9E+06
Ambient Air Finite VSI for 2 Meter Source Thickness			8.1E+07	2.2E+06	1.4E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	7.4E+08	1.3E+08	NLV	1.50E+06	3.00E+05	1.60E+05	6.5E+08	7.9E+06
Ambient Air Particulate Soil Inhalation (Res PSI)			1.4E+10	2.3E+09	6.7E+10	ID	1.5E+06	ID	8.0E+08	ID	ID	ID	9.3E+09	9.3E+09	ID	6.70E+08	2.0E+08	6.7E+06	6.7E+09	5.2E+06
Direct Contact (Res DC)			4.1E+07	1.6E+06	2.3E+08	20,000	2,000	20,000	2.5E+06	2.00E+05	2.0E+06	2,000	4.6E+07	2.7E+07	20,000	8.10E+06	1.6E+07	1.6E+06	2.9E+07	4,000
Nonresidential (µg/Kg)																				
Drinking Water Protection (Nonres DWP)			8.80E+05	17,000	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.30E+05	8.90E+05	NLL	1.70E+05	1.00E+05	1.60E+05	4.80E+05	NLL
Soil Volatilization to Indoor Air Inhalation (Nonres SVII)			3.5E+08	3.0E+06	1.0E+9 {D}	NLV	NLV	ID	NLV	NLV	ID	NLV	1.0E+9 {D}	1.0E+9 {D}	NLV	4.90E+06	4.70E+05	5.1E+06	1.0E+9 {D}	1.6E+07
Ambient Air Infinite Source Volatile Soil Inhalation (Nonres VSI)			9.7E+07	2.7E+06	1.6E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	8.9E+08	1.5E+08	NLV	1.80E+06	3.50E+05	1.90E+05	7.8E+08	8.10E+05
Ambient Air Finite VSI for 5 Meter Source Thickness			9.7E+07	2.7E+06	1.6E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	8.8E+08	1.5E+08	NLV	1.80E+06	3.50E+05	1.90E+05	7.8E+08	2.8E+07
Ambient Air Finite VSI for 2 Meter Source Thickness			9.7E+07	2.7E+06	1.6E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	8.8E+08	1.5E+08	NLV	1.80E+06	3.50E+05	1.90E+05	7.8E+08	2.8E+07
Ambient Air Particulate Soil Inhalation (Nonres PSI)			6.2E+09	1.0E+09	2.9E+10	ID	1.9E+06	ID	3.5E+08	ID	ID	ID	4.1E+09	4.1E+09	ID	2.90E+08	8.8E+07	2.9E+06	2.9E+09	6.5E+06
Direct Contact (Nonres DC)			1.3E+08	5.2E+06	7.3E+08	80,000	8,000	80,000	7.0E+06	8.00E+05	8.0E+06	8,000	1.3E+08	8.7E+07	80,000	2.60E+07	5.2E+07	5.2E+06	8.4E+07	16,000
USEPA Removal Management Levels (RMLs) Industrial Soil RML Table, November 2019																				
Industrial Soil (µg/Kg)																				
EPA RML (THQ 3.0)			1.40E+08	NL	6.80E+08	2.10E+06	2.10E+05	2.10E+06	NA	2.10E+07	2.10E+08	2.10E+05	9.00E+07	9.00E+07	2.10E+06	9.00E+06	1.80E+06	NA	6.80E+07	NA

	Nonresidential Criterion Exceeded
BOLD	Value Exceeds Nonresidential Criterion
bgs	Below Ground Surface (feet)
1.0E+9 {D}	Other Alpha notation, please refer to EGLE Footnotes R 299.49 Footnotes for Generic Cleanup Crtieria Tables, December 30, 2013
ND	Non-detected at levels above laboratory method detection limit (MDL)
NA	Not Applicable
NL	Not Listed
NLL	Not Likely to Leach
NLV	Not Likely to Volatilize
ID	Insufficient Data

LAND USE CATEGORY	Part 201
Residential	4,000 µg/Kg
Nonresidential	16,000 µg/Kg

TABLE 2B
SUMMARY OF ANALYTICAL RESULTS
BANK FAILURE MATERIAL SAMPLES
PNAs, PCBs
5851 WEST JEFFERSON AVENUE, DETROIT, MICHIGAN
PM PROJECT #01-5303-3-0003

Polynuclear Aromantic Compounds (PNAs) and Polychlorinated Biphenyls (PCBs) (µg/Kg)				Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene	Polychlorinated Biphenyls
Chemical Abstract Service Number (CAS#)				83329	208968	120127	56553	50328	205992	191242	207089	218019	53703	206440	86737	193395	91576	91203	85018	129000	1336363
Sample ID	**Sample Date**	**Thickness of Water Column (feet ags)**	**Sample Depth (feet bgs)**	**PNAs**																	**PCBs**
S-1	2/12/2020	25.0	4.0-5.0	370	130	3,100	1,800	1,200	1,600	380	470	1,500	71	**7,900**	570	580	54	200	**6,100**	4,000	<MDL
S-2	2/12/2020	12.0-15.0	5.0-7.0	74	<5.3	33	27	17	21	8.8	7.1	33	<5.3	99	42	6.8	100	250	170	68	<MDL
S-3	2/13/2020	6.0	3.0-4.0	570	110	380	820	650	780	430	220	920	82	2,000	290	390	94	96	1,600	1,600	<MDL
S-3	2/13/2020		7.0-8.0	600	180	880	1,400	1,000	1,200	630	330	1,500	140	3,600	600	570	520	290	**3,700**	2,200	<MDL
S-4	2/13/2020	12.0	2.0-3.0	1,600	82	1,200	1,200	780	730	320	210	1,000	130	2,300	890	350	400	300	**3,300**	2,400	<MDL
S-4	2/13/2020		7.0-8.0	290	20	350	640	590	520	330	110	590	170	980	220	310	110	110	1,000	990	<MDL
S-5	2/12/2020	12.0	2.0-3.0	240	180	1,000	700	470	760	220	180	690	39	2,900	650	260	150	81	**3,200**	1,400	<MDL
S-5	2/12/2020		14.0-15.0	280	330	930	470	260	420	110	110	440	22	2,400	1,100	130	690	460	**3,700**	1,200	<MDL
S-6	2/13/2020	10.0-12.0	3.0-4.0	350	<25	650	820	580	900	340	320	890	70	2,400	290	430	270	520	**2,300**	1,500	<MDL
A-6 (Co-locate)				14	<5.1	13	17	13	14	5.9	<5.1	20	<5.1	36	9.5	6.2	<5.1	<5.1	31	31	<MDL
S-6	2/13/2020		8.0-9.0	<11	<11	11	24	34	32	35	11	34	<11	39	<11	17	<11	<11	36	36	<MDL
S-7	2/13/2020	20.0	2.0-3.0	170	6.0	24	14	6.6	6.4	<5.1	<5.1	9.4	<5.1	40	65	<5.1	<5.1	<5.1	110	43	<MDL
S-7	2/13/2020		8.0-9.0	600	24	580	260	140	170	58	59	230	13	850	530	82	200	230	2,100	770	<MDL
S-8	2/12/2020	27.0	2.0-3.0	170	130	210	880	610	600	140	180	760	34	1,200	160	190	11	<5.2	180	1,100	<MDL
A-3 (Co-locate)				83	17	33	42	27	24	6.1	8.3	37	<5.1	110	55	5.9	<5.1	<5.1	54	100	<MDL
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50)																					
Generic Soil Cleanup Criteria Tables 2 and 3: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, June 25, 2018																					
Residential (µg/Kg)																					
Statewide Default Background Levels				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Drinking Water Protection (Res DWP)				3.00E+05	5,900	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.30E+05	3.90E+05	NLL	57,000	35,000	56,000	4.80E+05	NLL
Groundwater Surface Water Interface Protection (GSIP)				8,700	ID	ID	NLL	NLL	NLL	NLL	NLL	NLL	NLL	5,500	5,300	NLL	4,200	730	2,100	ID	NLL
Soil Volatilization to Indoor Air Inhalation (Res SVII)				1.9E+08	1.60E+06	1.0E+9 {D}	NLV	NLV	ID	NLV	NLV	ID	NLV	1.0E+9 {D}	5.8E+08	NLV	2.70E+06	2.50E+05	2.8E+06	1.0E+9 {D}	3.0E+06
Ambient Air Infinite Source Volatile Soil Inhalation (Res VSI)				8.1E+07	2.2E+06	1.4E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	7.40E+08	1.3E+08	NLV	1.50E+06	3.00E+05	1.60E+05	6.5E+08	2.40E+05
Ambient Air Finite VSI for 5 Meter Source Thickness				8.1E+07	2.2E+06	1.4E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	7.4E+08	1.3E+08	NLV	1.50E+06	3.00E+05	1.60E+05	6.5E+08	7.9E+06
Ambient Air Finite VSI for 2 Meter Source Thickness				8.1E+07	2.2E+06	1.4E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	7.4E+08	1.3E+08	NLV	1.50E+06	3.00E+05	1.60E+05	6.5E+08	7.9E+06
Ambient Air Particulate Soil Inhalation (Res PSI)				1.4E+10	2.3E+09	6.7E+10	ID	1.5E+06	ID	8.0E+08	ID	ID	ID	9.3E+09	9.3E+09	ID	6.70E+08	2.0E+08	6.7E+06	6.7E+09	5.2E+06
Direct Contact (Res DC)				4.1E+07	1.6E+06	2.3E+08	20,000	2,000	20,000	2.5E+06	2.00E+05	2.0E+06	2,000	4.6E+07	2.7E+07	20,000	8.10E+06	1.6E+07	1.6E+06	2.9E+07	4,000
Nonresidential (µg/Kg)																					
Drinking Water Protection (Nonres DWP)				8.80E+05	17,000	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.30E+05	8.90E+05	NLL	1.70E+05	1.00E+05	1.60E+05	4.80E+05	NLL
Soil Volatilization to Indoor Air Inhalation (Nonres SVII)				3.5E+08	3.0E+06	1.0E+9 {D}	NLV	NLV	ID	NLV	NLV	ID	NLV	1.0E+9 {D}	1.0E+9 {D}	NLV	4.90E+06	4.70E+05	5.1E+06	1.0E+9 {D}	1.6E+07
Ambient Air Infinite Source Volatile Soil Inhalation (Nonres VSI)				9.7E+07	2.7E+06	1.6E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	8.9E+08	1.5E+08	NLV	1.80E+06	3.50E+05	1.90E+05	7.8E+08	8.10E+05
Ambient Air Finite VSI for 5 Meter Source Thickness				9.7E+07	2.7E+06	1.6E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	8.8E+08	1.5E+08	NLV	1.80E+06	3.50E+05	1.90E+05	7.8E+08	2.8E+07
Ambient Air Finite VSI for 2 Meter Source Thickness				9.7E+07	2.7E+06	1.6E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	8.8E+08	1.5E+08	NLV	1.80E+06	3.50E+05	1.90E+05	7.8E+08	2.8E+07
Ambient Air Particulate Soil Inhalation (Nonres PSI)				6.2E+09	1.0E+09	2.9E+10	ID	1.9E+06	ID	3.5E+08	ID	ID	ID	4.1E+09	4.1E+09	ID	2.90E+08	8.8E+07	2.9E+06	2.9E+09	6.5E+06
Direct Contact (Nonres DC)				1.3E+08	5.2E+06	7.3E+08	80,000	8,000	80,000	7.0E+06	8.00E+05	8.0E+06	8,000	1.3E+08	8.7E+07	80,000	2.60E+07	5.2E+07	5.2E+06	8.4E+07	16,000
USEPA Removal Management Levels (RMLs) Industrial Soil RML Table, November 2019																					
Industrial Soil (µg/Kg)																					
EPA RML (THQ 3.0)				1.40E+08	NL	6.80E+08	2.10E+06	2.10E+05	2.10E+06	NA	2.10E+07	2.10E+08	2.10E+05	9.00E+07	9.00E+07	2.10E+06	9.00E+06	1.80E+06	NA	6.80E+07	NA

	Nonresidential Criterion Exceeded
BOLD	Value Exceeds Nonresidential Criterion
bgs	Below Ground Surface (feet)
1.0E+9 {D}	Other Alpha notation, please refer to EGLE Footnotes R 299.49 Footnotes for Generic Cleanup Crtieria Tables, December 30, 2013
ND	Non-detected at levels above laboratory method detection limit (MDL)
NA	Not Applicable
NL	Not Listed
NLL	Not Likely to Leach
NLV	Not Likely to Volatilize
ID	Insufficient Data
ags	Above Ground Surface (feet)

LAND USE CATEGORY	Part 201
Residential	4,000 µg/Kg
Nonresidential	16,000 µg/Kg

TABLE 2C
SUMMARY OF ANALYTICAL RESULTS
RIVER SEDIMENT SAMPLES
PNAs, PCBs
5851 WEST JEFFERSON AVENUE, DETROIT, MICHIGAN
PM PROJECT #01-5303-3-0003

Polynuclear Aromantic Compounds (PNAs) and Polychlorinated Biphenyls (PCBs) (µg/Kg)				Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene	Polychlorinated Biphenyls
Chemical Abstract Service Number (CAS#)				83329	208968	120127	56553	50328	205992	191242	207089	218019	53703	206440	86737	193395	91576	91203	85018	129000	1336363
Sample ID	**Sample Date**	**Thickness of Water Column (feet ags)**	**Sample Depth (feet bgs)**	**PNAs**																	**PCBs**
S-1	2/12/2020	25.0	5.0-10.0 (Composite Core)	<5.0	<5.0	6.6	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	8.0	<5.0	<5.0	<5.0	<5.0	11	<5.0	<MDL
S-2	2/12/2020	12.0-15.0	7.0-12.0 (Composite Core)	<5.3	<5.3	6.8	7.9	<5.3	<5.3	<5.3	<5.3	6.7	<5.3	22	<5.3	<5.3	7.2	7.9	28	14	<MDL
S-3	2/13/2020		10.0-11.0	<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	<MDL
S-3	2/13/2020		11.0-12.0	12	<5.6	6.7	<5.6	<5.6	<5.6	<5.6	<5.6	<5.6	<5.6	11	6.5	<5.6	9.5	7.7	27	9.3	<MDL
S-3	2/13/2020	6.0	12.0-13.0	18	<5.6	9.3	<5.6	<5.6	<5.6	<5.6	<5.6	<5.6	<5.6	15	9.9	<5.6	13	33	39	13	<MDL
S-3	2/13/2020		13.0-14.0	16	<5.3	6.3	<5.3	<5.3	<5.3	<5.3	<5.3	<5.3	<5.3	12	6.8	<5.3	8.0	11	29	9.1	<MDL
S-3	2/13/2020		14.0-15.0	<19	<19	<19	<19	<19	<19	<19	<19	<19	<19	22	<19	<19	<19	<19	49	<19	<MDL
S-4	2/13/2020		10.0-11.0	56	<5.2	14	15	7.6	6.4	<5.2	<5.2	9.0	<5.2	25	14	<5.2	8.6	<5.2	42	29	<MDL
S-4	2/13/2020		11.0-12.0	64	<5.2	60	55	35	38	12	13	51	<5.2	110	37	14	14	6.0	170	130	<MDL
S-4	2/13/2020	12.0	12.0-13.0	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	5.4	<5.2	<5.2	<5.2	<5.2	6.1	<5.2	<MDL
S-4	2/13/2020		13.0-14.0	23	<5.1	18	12	7.1	8.9	5.4	<5.1	9.8	<5.1	29	13	<5.1	<5.1	<5.1	49	34	<MDL
S-4	2/13/2020		14.0-15.0	25	<5.3	5.9	<5.3	<5.3	<5.3	<5.3	<5.3	<5.3	<5.3	9.5	12	<5.3	<5.3	<5.3	21	10	<MDL
S-5	2/12/2020	12.0	17.0-22.0 (Composite Core)	<5.0	<5.0	12	7.1	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	18	9.5	<5.0	6.9	<5.0	39	11	<MDL
S-6	2/13/2020		12.0-13.0	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	12	<5.1	<MDL
S-6	2/13/2020		13.0-14.0	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	9.2	<4.9	<MDL
S-6	2/13/2020	10.0-12.0	14.0-15.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	12	<5.0	<MDL
S-6	2/13/2020		15.0-16.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	9.9	<5.0	<MDL
S-6	2/13/2020		16.0-17.0	<4.9	<4.9	<4.9	6.1	<4.9	7.4	8.1	<4.9	<4.9	<4.9	4.9	<4.9	6.4	<4.9	<4.9	12	6.4	<MDL
S-7	2/13/2020		10.0-11.0	120	7.1	150	90	52	57	22	21	87	<5.0	240	93	25	15	7.1	480	250	<MDL
S-7	2/13/2020		11.0-12.0	120	<4.9	130	55	34	34	19	12	56	<4.9	180	98	16	11	5.4	430	170	<MDL
S-7	2/13/2020	20.0	12.0-13.0	15	<4.9	19	7.5	<4.9	<4.9	<4.9	<4.9	5.2	<4.9	22	12	<4.9	6.9	<4.9	61	23	<MDL
S-7	2/13/2020		13.0-14.0	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	15	<4.9	<MDL
S-7	2/13/2020		14.0-15.0	27	<5.0	25	13	7.2	5.3	<5.0	<5.0	8.0	<5.0	34	18	<5.0	6.8	<5.0	90	35	<MDL
S-8	2/12/2020		3.0-8.0 (Composite Core)	<5.3	<5.3	<5.3	<5.3	<5.3	<5.3	<5.3	<5.3	<5.3	<5.3	<5.3	<5.3	<5.3	<5.3	<5.3	5.7	<5.3	<MDL
S-8R	2/17/2020		0-1.0	<4.9	<4.9	<4.9	5.1	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	5.0	<4.9	<4.9	<4.9	<4.9	5.0	5.1	<MDL
S-8R	2/17/2020	27.0	1.0-2.0	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<MDL
S-8R	2/17/2020		2.0-3.0	<5.4	<5.4	<5.4	<5.4	<5.4	<5.4	<5.4	<5.4	<5.4	<5.4	<5.4	<5.4	<5.4	<5.4	<5.4	<5.4	<5.4	<MDL
S-8R	2/17/2020		3.0-4.0	<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	5.9	<5.5	<5.5	<5.5	<5.5	15	<5.5	<MDL
S-8R	2/17/2020		4.0-5.0	5.7	<4.9	11	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	9.3	11	<4.9	9.3	<4.9	35	6.9	<MDL
S-9	2/11/2020		0-5.0 (Composite Core)	**55,000**	4,300	**47,000**	20,000	**9,900**	13,000	1,900	2,700	16,000	690	**58,000**	**52,000**	2,900	**76,000**	**210,000**	**130,000**	43,000	<MDL
S-9R	2/17/2020		0-1.0	1,600	63	760	320	170	180	48	73	260	11	990	1,300	64	2,000	**4,500**	**3,100**	900	<MDL
S-9R	2/17/2020	33.0	1.0-2.0	**9,700**	450	5,800	3,200	1,800	1,800	490	640	2,400	120	**7,800**	**7,800**	690	**13,000**	**23,000**	**22,000**	7,900	<MDL
S-9R	2/17/2020		2.0-3.0	2,800	130	1,700	800	460	470	130	190	640	30	2,200	2,100	180	3,600	**7,200**	**6,100**	2,200	<MDL
S-9R	2/17/2020		3.0-4.0	1,500	53	690	310	160	180	49	69	240	16	1,000	1,100	69	1,600	**4,100**	**2,800**	970	<MDL
S-9R	2/17/2020		4.0-5.0	5,800	290	3,400	1,900	1,100	1,100	310	440	1,400	85	5,100	5,100	470	**6,700**	**18,000**	**15,000**	4,600	<MDL
S-10	2/11/2020		0-5.0 (Composite Core)	1,000	85	800	700	350	450	78	140	570	22	2,400	1,100	110	590	500	**2,400**	1,500	<MDL
S-10R	2/17/2020		0-1.0	230	22	210	210	110	130	35	50	170	8.1	510	220	50	230	470	610	470	<MDL
A-8 (Co-locate)				160	34	350	360	200	210	60	83	290	13	820	220	76	46	120	950	910	<MDL
S-10R	2/17/2020	33.0	1.0-2.0	130	5.7	110	68	38	36	12	15	50	<5.1	140	110	14	120	100	340	160	<MDL
S-10R	2/17/2020		2.0-3.0	37	<5.0	25	48	30	32	10	14	43	<5.0	120	34	12	16	6.3	62	130	<MDL
S-10R	2/17/2020		3.0-4.0	8.1	<4.8	8.1	9.2	5.5	<4.8	<4.8	<4.8	8.7	<4.8	15	7.9	<4.8	11	<4.8	37	18	<MDL
S-10R	2/17/2020		4.0-5.0	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	18	<4.9	<MDL
S-11	2/11/2020		0-5.0 (Composite Core)	25	<6.3	29	42	29	36	7.9	11	37	<6.3	100	18	8.4	<6.3	<6.3	48	71	<MDL
S-11	2/11/2020		5.0-10.0 (Composite Core)	150	17	250	260	190	330	110	98	280	21	1,000	140	120	99	230	840	560	240
S-11R	2/13/2020		5.0-6.0	42	<5.0	36	33	23	25	8.2	7.2	31	<5.0	79	38	10	25	94	150	71	<MDL
S-11R	2/13/2020	30.0	6.0-7.0	8.1	<5.0	8.7	11	6.5	5.4	<5.0	<5.0	7.7	<5.0	24	7.9	<5.0	<5.0	<5.0	40	24	<MDL
S-11R	2/13/2020		7.0-8.0	<5.0	<5.0	6.8	6.2	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	12	5.2	<5.0	<5.0	<5.0	32	11	<MDL
S-11R	2/13/2020		8.0-9.0	<5.1	<5.1	7.4	5.8	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	15	<5.1	<5.1	<5.1	<5.1	23	14	<MDL
S-11R	2/13/2020		9.0-10.0	<5.0	<5.0	6.5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	11	<5.0	<5.0	<5.0	50	21	10	<MDL
S-12	2/11/2020		0-5.0 (Composite Core)	32	5.2	18	47	34	35	8.8	11	41	<5.0	120	13	10	<5.0	<5.0	30	97	<MDL
S-12R	2/17/2020		0-1.0	18	<5.1	29	34	19	22	6.3	6.6	30	<5.1	66	17	6.3	<5.1	<5.1	62	76	<MDL
S-12R	2/17/2020		1.0-2.0	<5.4	<5.4	<5.4	6.3	<5.4	6.3	6.4	<5.4	<5.4	<5.4	5.8	<5.4	<5.4	<5.4	<5.4	14	6.9	<MDL
A-9 (Co-locate)		33.0		<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	<5.5	11	<5.5	<MDL
S-12R	2/17/2020		2.0-3.0	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	18	5.2	<MDL
S-12R	2/17/2020		3.0-4.0	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	7.7	<4.9	<MDL
S-12R	2/17/2020		4.0-5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	11	<5.0	<MDL
S-13	2/11/2020		0-5.0 (Composite Core)	230	36	200	290	200	250	47	60	300	13	570	150	61	53	59	480	460	<MDL
S-13R	2/13/2020		0-1.0	1,300	55	960	500	260	260	85	100	480	20	1,500	880	100	20	<19	**2,900**	1,700	<MDL
S-13R	2/13/2020		1.0-2.0	30	<16	53	26	<16	<16	<16	<16	26	<16	63	26	<16	<16	<16	110	64	<MDL
A-7 (Co-locate)		29.0		10	<5.6	9.6	7.1	<5.6	<5.6	<5.6	<5.6	<5.6	<5.6	11	8.0	<5.6	<5.6	<5.6	40	13	<MDL
S-13R	2/13/2020		2.0-3.0	570	31	290	71	26	35	8.3	18	65	<4.9	250	680	9.7	1,200	**1,200**	1,100	170	<MDL
S-13R	2/13/2020		3.0-4.0	9.9	<5.0	13	7.3	<5.0	<5.0	<5.0	<5.0	6.3	<5.0	20	7.7	<5.0	<5.0	<5.0	41	22	<MDL
S-13R	2/13/2020		4.0-5.0	<5.1	<5.1	9.4	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	16	<5.1	<5.1	<5.1	<5.1	32	13	<MDL
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50)																					
Generic Soil Cleanup Criteria Tables 2 and 3: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, June 25, 2018																					
Residential (µg/Kg)																					
Statewide Default Background Levels				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Drinking Water Protection (Res DWP)				3.00E+05	5,900	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.30E+05	3.90E+05	NLL	57,000	35,000	56,000	4.80E+05	NLL
Groundwater Surface Water Interface Protection (GSIP)				8,700	ID	ID	NLL	NLL	NLL	NLL	NLL	NLL	NLL	5,500	5,300	NLL	4,200	730	2,100	ID	NLL
Soil Volatilization to Indoor Air Inhalation (Res SVII)				1.9E+08	1.60E+06	1.0E+9 {D}	NLV	NLV	ID	NLV	NLV	ID	NLV	1.0E+9 {D}	5.8E+08	NLV	2.70E+06	2.50E+05	2.8E+06	1.0E+9 {D}	3.0E+06
Ambient Air Infinite Source Volatile Soil Inhalation (Res VSI)				8.1E+07	2.2E+06	1.4E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	7.40E+08	1.3E+08	NLV	1.50E+06	3.00E+05	1.60E+05	6.5E+08	2.40E+05
Ambient Air Finite VSI for 5 Meter Source Thickness				8.1E+07	2.2E+06	1.4E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	7.4E+08	1.3E+08	NLV	1.50E+06	3.00E+05	1.60E+05	6.5E+08	7.9E+06
Ambient Air Finite VSI for 2 Meter Source Thickness				8.1E+07	2.2E+06	1.4E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	7.4E+08	1.3E+08	NLV	1.50E+06	3.00E+05	1.60E+05	6.5E+08	7.9E+06
Ambient Air Particulate Soil Inhalation (Res PSI)				1.4E+10	2.3E+09	6.7E+10	ID	1.5E+06	ID	8.0E+08	ID	ID	ID	9.3E+09	9.3E+09	ID	6.70E+08	2.0E+08	6.7E+06	6.7E+09	5.2E+06
Direct Contact (Res DC)				4.1E+07	1.6E+06	2.3E+08	20,000	2,000	20,000	2.5E+06	2.00E+05	2.0E+06	2,000	4.6E+07	2.7E+07	20,000	8.10E+06	1.6E+07	1.6E+06	2.9E+07	4,000
Nonresidential (µg/Kg)																					
Drinking Water Protection (Nonres DWP)				8.80E+05	17,000	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.30E+05	8.90E+05	NLL	1.70E+05	1.00E+05	1.60E+05	4.80E+05	NLL
Soil Volatilization to Indoor Air Inhalation (Nonres SVII)				3.5E+08	3.0E+06	1.0E+9 {D}	NLV	NLV	ID	NLV	NLV	ID	NLV	1.0E+9 {D}	1.0E+9 {D}	NLV	4.90E+06	4.70E+05	5.1E+06	1.0E+9 {D}	1.6E+07
Ambient Air Infinite Source Volatile Soil Inhalation (Nonres VSI)				9.7E+07	2.7E+06	1.6E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	8.9E+08	1.5E+08	NLV	1.80E+06	3.50E+05	1.90E+05	7.8E+08	8.10E+05
Ambient Air Finite VSI for 5 Meter Source Thickness				9.7E+07	2.7E+06	1.6E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	8.8E+08	1.5E+08	NLV	1.80E+06	3.50E+05	1.90E+05	7.8E+08	2.8E+07
Ambient Air Finite VSI for 2 Meter Source Thickness				9.7E+07	2.7E+06	1.6E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	8.8E+08	1.5E+08	NLV	1.80E+06	3.50E+05	1.90E+05	7.8E+08	2.8E+07
Ambient Air Particulate Soil Inhalation (Nonres PSI)				6.2E+09	1.0E+09	2.9E+10	ID	1.9E+06	ID	3.5E+08	ID	ID	ID	4.1E+09	4.1E+09	ID	2.90E+08	8.8E+07	2.9E+06	2.9E+09	6.5E+06
Direct Contact (Nonres DC)				1.3E+08	5.2E+06	7.3E+08	80,000	8,000	80,000	7.0E+06	8.00E+05	8.0E+06	8,000	1.3E+08	8.7E+07	80,000	2.60E+07	5.2E+07	5.2E+06	8.4E+07	16,000
USEPA Removal Management Levels (RMLs)																					
Industrial Soil RML Table, November 2019																					
Industrial Soil (µg/Kg)																					
EPA RML (THQ 3.0)				1.40E+08	NL	6.80E+08	2.10E+06	2.10E+05	2.10E+06	NA	2.10E+07	2.10E+08	2.10E+05	9.00E+07	9.00E+07	2.10E+06	9.00E+06	1.80E+06	NA	6.80E+07	NA

	Nonresidential Criterion Exceeded
BOLD	Value Exceeds Applicable Criterion/RBSL
bgs	Below Ground Surface (feet)
1.0E+9 {D}	Other Alpha notation, please refer to EGLE Footnotes R 299.49 Footnotes for Generic Cleanup Crtieria Tables, December 30, 2013
ND	Non-detected at levels above laboratory method detection limit (MDL)
NA	Not Applicable
NL	Not Listed
NLL	Not Likely to Leach
NLV	Not Likely to Volatilize
ID	Insufficient Data
ags	Above Ground Surface

LAND USE CATEGORY	Part 201
Residential	4,000 µg/Kg
Nonresidential	16,000 µg/Kg

TABLE 3A
SUMMARY OF SOIL ANALYTICAL RESULTS
ON LAND SAMPLES
METALS
5851 WEST JEFFERSON AVENUE, DETROIT, MICHIGAN
PM PROJECT #01-5303-3-0003

Metals (µg/Kg)			Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thorium	Uranium	Zinc
Chemical Abstract Service Number (CAS#)			7440382	7440393	7440439	16065831	7440508	7439921	7439976	7440020	7782492	7440224	7440291	7440611	7440666
Sample ID	**Sample Date**	**Sample Depth (feet bgs)**	**Metals**												
SB-12	2/10/2020	4.0-5.0	3,800	39,000	430	10,000	**71,000**	10,000	24	12,000	<460	<460	2,700	480	**120,000**
SB-12	2/10/2020	9.0-10.0	**7,400**	41,000	**64,000**	6,300	**2,200,000**	**89,000**	**1100**	6,400	**870**	**1,400**	1,200	<460	**3,100,000**
SB-13	2/10/2020	3.5-4.5	**14,000**	160,000	890	**240,000**	**1,000,000**	**83,000**	85	55,000	**1,000**	<460	2,400	4,500	**840,000**
SB-13	2/10/2020	4.5-5.5	**7,600**	130,000	**63,000**	**170,000**	**700,000**	**110,000**	**630**	31,000	**37,000**	**2,100**	1,200	4,100	**1,400,000**
SB-14	2/10/2020	1.5-2.5	2,800	98,000	<160	**33,000**	**48,000**	11,000	<19	5,500	410	<410	1,200	1,400	**48,000**
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50)															
Generic Soil Cleanup Criteria Tables 2 and 3: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, December 30, 2013															
EGLE Media-Specific Volatilization to Indoor Air Interim Action Screening Levels, August 2017															
Residential (µg/Kg)															
Statewide Default Background Levels			5,800	75,000	1,200	18,000	32,000	21,000	130	20,000	410	1,000	NL	NL	47,000
Drinking Water Protection (DWP)			4,600	1.30E+06	6,000	30,000	5.80E+06	7.00E+05	1,700	1.00E+05	4,000	4,500	NL	NL	2.40E+06
Groundwater Surface Water Interface Protection (GSIP)			4,600	4.3E+5 {G}	3,600 {G,X}	3,300	3,300	71,000 {G}	50 {M}; 1.2	75,000 {G}	400	100 {M}; 27	NL	NL	1.6E+5 {G}
Soil Volatilization to Indoor Air Inhalation (SVII)			NLV	NLV	NLV	NLV	NLV	NLV	48,000	NLV	NLV	NLV	NL	NL	NLV
Ambient Air Infinite Source Volatile Soil Inhalation (VSI)			NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV	NL	NL	NLV
Ambient Air Finite VSI for 5 Meter Source Thickness			NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV	NL	NL	NLV
Ambient Air Finite VSI for 2 Meter Source Thickness			NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV	NL	NL	NLV
Ambient Air Particulate Soil Inhalation (PSI)			7.20E+05	3.30E+08	1.70E+06	2.60E+05	1.30E+08	_	2.00E+07	1.30E+07	1.30E+08	6.70E+06	NL	NL	ID
Direct Contact (DC)			7,600	3.70E+07	5.50E+05	2.50E+06	2.00E+07	4.00E+05	1.60E+05	4.00E+07	2.60E+06	2.50E+06	NL	NL	1.70E+08
Nonresidential (µg/Kg)															
Drinking Water Protection (Nonres DWP)			4,600	1.30E+06	6,000	30,000	5.80E+06	7.00E+05	1,700	1.00E+05	4,000	4,500	NL	NL	5.00E+06
Soil Volatilization to Indoor Air Inhalation (Nonres SVII)			NLV	NLV	NLV	NLV	NLV	NLV	89,000	NLV	NLV	NLV	NL	NL	NLV
Ambient Air Infinite Source Volatile Soil Inhalation (Nonres VSI)			NLV	NLV	NLV	NLV	NLV	NLV	62,000	NLV	NLV	NLV	NL	NL	NLV
Ambient Air Finite VSI for 5 Meter Source Thickness			NLV	NLV	NLV	NLV	NLV	NLV	62,000	NLV	NLV	NLV	NL	NL	NLV
Ambient Air Finite VSI for 2 Meter Source Thickness			NLV	NLV	NLV	NLV	NLV	NLV	62,000	NLV	NLV	NLV	NL	NL	NLV
Ambient Air Particulate Soil Inhalation (Nonres PSI)			9.10E+05	1.50E+08	2.20E+06	2.40E+05	5.90E+07	_	8.80E+06	1.60E+07	5.90E+07	2.90E+06	NL	NL	ID
Direct Contact (Nonres DC)			37,000	1.30E+08	2.10E+06	9.20E+06	7.30E+07	9.0E+5 (DD)	5.80E+05	1.50E+08	9.60E+06	9.00E+06	NL	NL	6.30E+08
Screening Levels (µg/Kg)															
Soil Saturation Concentration Screening Levels (Csat)			NA	NA	NA	NA	NA	NA	NA	NL	NA	NA	NL	NL	NA
USEPA Removal Management Levels (RMLs)															
Industrial Soil RML Table, November 2019															
Industrial Soil (µg/Kg)															
EPA RML (THQ 3.0)			3.00E+05	6.50E+08	2.90E+06	NA	1.40E+08	8.00E+05	1.40E+05	NA	1.80E+07	1.80E+07	NA	7.00E+05	1.10E+09

{G} Metal GSIP Criteria for Surface Water Not Protected for Drinking Water Use based on 146 mg/L CaCO3 Hardness: Station ID 259010, Detroit River, near Detroit, MI.

	Nonresidential Criterion Exceeded
BOLD	Value Exceeds Nonresidential Criterion
bgs	Below Ground Surface (feet)
{G}	Other Alpha notation, please refer to EG:E Footnotes R 299.49 Footnotes for Generic Cleanup Crtieria Tables, December 30, 2013
NA	Not Applicable
NL	Not Listed
NLV	Not Likely to Volatilize
ID	Insufficient Data

TABLE 3B
SUMMARY OF ANALYTICAL RESULTS
METALS
BANK FAILURE MATERIAL SAMPLES
5851 WEST JEFFERSON AVENUE, DETROIT, MICHIGAN
PM PROJECT #01-5303-3-0003

Metals (µg/Kg)				Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thorium	Uranium	Zinc
Chemical Abstract Service Number (CAS#)				7440382	7440393	7440439	16065831	7440508	7439921	7439976	7440020	7782492	7440224	7440291	7440611	7440666
Sample ID	**Sample Date**	**Thickness of Water Column (feet ags)**	**Sample Depth (feet bgs)**	**Metals**												
S-1	2/12/2020	25.0	4.0-5.0	**6,800**	68,000	510	**22,000**	**290,000**	**67,000**	38	21,000	<490	<490	3,500	1,300	**290,000**
S-2	2/12/2020	12.0-15.0	5.0-7.0	**6,800**	100,000	**6,900**	**30,000**	**1,600,000**	11,000	37	22,000	<530	<530	5,600	960	**1,400,000**
S-3	2/13/2020	6.0	3.0-4.0	**11,000**	100,000	**15,000**	**110,000**	**2,100,000**	**560,000**	**420**	14,000	<600	**2,000**	1,900	1,500	**2,300,000**
S-3	2/13/2020		7.0-8.0	**7,400**	98,000	**6,000**	**100,000**	**2,200,000**	**420,000**	240	23,000	<840	<840	1,800	1,400	**1,300,000**
S-4	2/13/2020	12.0	2.0-3.0	**23,000**	80,000	**200,000**	**91,000**	**4,800,000**	**380,000**	**670**	15,000	**1,300**	**2,100**	2,400	910	**5,300,000**
S-4	2/13/2020		7.0-8.0	**8,600**	74,000	**89,000**	**31,000**	**5,000,000**	**1,200,000**	**160**	17,000	**570**	<470	2,200	790	**2,800,000**
S-5	2/12/2020	12.0	2.0-3.0	4,900	86,000	**11,000**	17,000	**1,600,000**	**66,000**	54	17,000	<460	630	3,600	910	**680,000**
S-5	2/12/2020		14.0-15.0	**7,600**	69,000	**7,300**	**28,000**	**1,700,000**	**210,000**	70	17,000	<450	<450	2,400	1,200	**1,200,000**
S-6	2/13/2020	10.0-12.0	3.0-4.0	**8,500**	66,000	**13,000**	**20,000**	**1,400,000**	**170,000**	100	17,000	**2,200**	<590	2,200	870	**1,300,000**
A-6 (Co-locate)				5,300	57,000	**7,100**	**19,000**	**1,000,000**	**130,000**	110	10,000	**1,600**	<500	1,800	740	**840,000**
S-6	2/13/2020		8.0-9.0	**6,600**	82,000	**1,300**	**30,000**	**140,000**	**23,000**	51	20,000	**670**	<450	4,300	1,500	**170,000**
S-7	2/13/2020	20.0	2.0-3.0	**8,300**	59,000	660	**320,000**	**330,000**	**75,000**	49	23,000	**470**	<410	4,100	1,000	**370,000**
S-7	2/13/2020		8.0-9.0	**8,900**	73,000	**1,500**	17,000	**310,000**	**200,000**	**1,600**	22,000	<540	<540	4,500	1,000	**450,000**
S-8	2/12/2020	27.0	2.0-3.0	4,000	45,000	<160	11,000	**46,000**	**78,000**	63	14,000	<400	<400	2,600	710	62,000
A-3 (Co-locate)				5,700	61,000	<160	14,000	**33,000**	16,000	40	27,000	<400	<400	3,900	1,200	55,000
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50)																
Generic Soil Cleanup Criteria Tables 2 and 3: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, December 30, 2013																
Residential (µg/Kg)																
Statewide Default Background Levels				5,800	75,000	1,200	18,000	32,000	21,000	130	20,000	410	1,000	NL	NL	47,000
Drinking Water Protection (DWP)				4,600	1.30E+06	6,000	30,000	5.80E+06	7.00E+05	1,700	1.00E+05	4,000	4,500	NL	NL	2.40E+06
Groundwater Surface Water Interface Protection (GSIP)				4,600	4.3E+5 {G}	3,600 {G,X}	3,300	3,300	71,000 {G}	50 {M}; 1.2	75,000 {G}	400	100 {M}; 27	NL	NL	1.6E+5 {G}
Soil Volatilization to Indoor Air Inhalation (SVII)				NLV	NLV	NLV	NLV	NLV	NLV	48,000	NLV	NLV	NLV	NL	NL	NLV
Ambient Air Infinite Source Volatile Soil Inhalation (VSI)				NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV	NL	NL	NLV
Ambient Air Finite VSI for 5 Meter Source Thickness				NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV	NL	NL	NLV
Ambient Air Finite VSI for 2 Meter Source Thickness				NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV	NL	NL	NLV
Ambient Air Particulate Soil Inhalation (PSI)				7.20E+05	3.30E+08	1.70E+06	2.60E+05	1.30E+08	_	2.00E+07	1.30E+07	1.30E+08	6.70E+06	NL	NL	ID
Direct Contact (DC)				7,600	3.70E+07	5.50E+05	2.50E+06	2.00E+07	4.00E+05	1.60E+05	4.00E+07	2.60E+06	2.50E+06	NL	NL	1.70E+08
Nonresidential (µg/Kg)																
Drinking Water Protection (Nonres DWP)				4,600	1.30E+06	6,000	30,000	5.80E+06	7.00E+05	1,700	1.00E+05	4,000	4,500	NL	NL	5.00E+06
Soil Volatilization to Indoor Air Inhalation (Nonres SVII)				NLV	NLV	NLV	NLV	NLV	NLV	89,000	NLV	NLV	NLV	NL	NL	NLV
Ambient Air Infinite Source Volatile Soil Inhalation (Nonres VSI)				NLV	NLV	NLV	NLV	NLV	NLV	62,000	NLV	NLV	NLV	NL	NL	NLV
Ambient Air Finite VSI for 5 Meter Source Thickness				NLV	NLV	NLV	NLV	NLV	NLV	62,000	NLV	NLV	NLV	NL	NL	NLV
Ambient Air Finite VSI for 2 Meter Source Thickness				NLV	NLV	NLV	NLV	NLV	NLV	62,000	NLV	NLV	NLV	NL	NL	NLV
Ambient Air Particulate Soil Inhalation (Nonres PSI)				9.10E+05	1.50E+08	2.20E+06	2.40E+05	5.90E+07	_	8.80E+06	1.60E+07	5.90E+07	2.90E+06	NL	NL	ID
Direct Contact (Nonres DC)				37,000	1.30E+08	2.10E+06	9.20E+06	7.30E+07	9.0E+5 (DD)	5.80E+05	1.50E+08	9.60E+06	9.00E+06	NL	NL	6.30E+08
Screening Levels (µg/Kg)																
Soil Saturation Concentration Screening Levels (Csat)				NA	NA	NA	NA	NA	NA	NA	NL	NA	NA	NL	NL	NA
USEPA Removal Management Levels (RMLs)																
Industrial Soil RML Table, November 2019																
Industrial Soil (µg/Kg)																
EPA RML (THQ 3.0)				3.00E+05	6.50E+08	2.90E+06	NA	1.40E+08	8.00E+05	1.40E+05	NA	1.80E+07	1.80E+07	NA	7.00E+05	1.10E+09

	Nonresidential Criterion Exceeded
BOLD	Value Exceeds Nonresidential Criterion
bgs	Below Ground Surface (feet)
{G}	Other Alpha notation, please refer to EGLE Footnotes R 299.49 Footnotes for Generic Cleanup Crtieria Tables, December 30, 2013
NA	Not Applicable
NL	Not Listed
NLV	Not Likely to Volatilize
ID	Insufficient Data
ags	Above Ground Surface (feet)

{G} Metal GSIP Criteria for Surface Water Not Protected for Drinking Water Use based on 146 mg/L CaCO3 Hardness: Station ID 259010, Detroit River, near Detroit, MI.

TABLE 3C
SUMMARY OF ANALYTICAL RESULTS
RIVER SEDIMENT SAMPLES
METALS
5851 WEST JEFFERSON AVENUE, DETROIT, MICHIGAN
PM PROJECT #01-5303-3-0003

Metals (µg/Kg)				Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thorium	Uranium	Zinc
Chemical Abstract Service Number (CAS#)				7440382	7440393	7440439	16065831	7440508	7439921	7439976	7440020	7782492	7440224	7440291	7440611	7440666
Sample ID	**Sample Date**	**Thickness of Water Column (feet ags)**	**Sample Depth (feet bgs)**	**Metals**												
S-1	2/12/2020	25.0	5.0-10.0 (Composite Core)	5,800	36,000	<170	10,000	13,000	6,900	<21	17,000	<430	<430	3,100	1,200	46,000
S-2	2/12/2020	12.0-15.0	7.0-12.0 (Composite Core)	**6,500**	97,000	670	**25,000**	**120,000**	**23,000**	<24	26,000	<420	<420	6,000	1,300	**200,000**
S-3	2/13/2020	6.0	10.0-11.0	4,600	88,000	<180	**19,000**	**35,000**	14,000	<23	24,000	<460	<460	5,000	1,200	71,000
S-3	2/13/2020		11.0-12.0	**6,700**	100,000	<230	**24,000**	28,000	15,000	25	31,000	<570	<570	5,800	1,400	57,000
S-3	2/13/2020		12.0-13.0	**7,800**	100,000	<200	**23,000**	31,000	18,000	<26	32,000	<500	<500	6,000	1,800	57,000
S-3	2/13/2020		13.0-14.0	**6,800**	81,000	<160	**20,000**	23,000	14,000	<21	27,000	<400	<400	5,100	1,400	50,000
S-3	2/13/2020		14.0-15.0	5,200	80,000	<190	17,000	16,000	11,000	<20	23,000	<480	<480	4,900	1,300	42,000
S-4	2/13/2020	12.0	10.0-11.0	**8,800**	120,000	<160	**22,000**	**53,000**	17,000	63	27,000	<400	<400	6,400	1,100	79,000
S-4	2/13/2020		11.0-12.0	**7,400**	140,000	<160	**22,000**	25,000	12,000	620	29,000	**450**	<400	6,800	1,600	55,000
S-4	2/13/2020		12.0-13.0	**10,000**	120,000	<210	**22,000**	**44,000**	18,000	47	28,000	<510	<510	6,100	1,100	74,000
S-4	2/13/2020		13.0-14.0	**9,200**	160,000	<170	**24,000**	**53,000**	17,000	<24	30,000	**520**	<440	6,900	1,300	91,000
S-4	2/13/2020		14.0-15.0	**55,000**	110,000	<170	**24,000**	**64,000**	**30,000**	110	33,000	<420	<420	6,500	1,200	120,000
S-5	2/12/2020	12.0	17.0-22.0 (Composite Core)	**6,200**	76,000	<200	13,000	17,000	9,300	<24	22,000	<500	<500	4,000	1,500	52,000
S-6	2/13/2020	10.0-12.0	12.0-13.0	5,700	70,000	<160	17,000	23,000	9,400	27	19,000	<390	<390	3,800	1,500	66,000
S-6	2/13/2020		13.0-14.0	**6,800**	75,000	<160	18,000	29,000	11,000	24	21,000	<410	<410	4,200	1,800	77,000
S-6	2/13/2020		14.0-15.0	**7,400**	72,000	<180	**22,000**	17,000	9,300	25	21,000	<460	<460	4,000	1,900	57,000
S-6	2/13/2020		15.0-16.0	**6,200**	72,000	<170	17,000	23,000	9,300	<18	20,000	<430	<430	5,400	1,600	54,000
S-6	2/13/2020		16.0-17.0	**6,200**	72,000	<170	**19,000**	23,000	9,500	<22	20,000	<410	<410	4,000	1,700	57,000
S-7	2/13/2020	20.0	10.0-11.0	**6,700**	72,000	260	14,000	**47,000**	**22,000**	43	21,000	<500	<500	4,000	1,600	140,000
S-7	2/13/2020		11.0-12.0	**6,200**	72,000	<160	13,000	26,000	14,000	68	20,000	<390	<390	4,000	1,700	66,000
S-7	2/13/2020		12.0-13.0	**6,200**	74,000	<170	13,000	23,000	9,700	<20	21,000	<410	<410	4,100	1,600	60,000
S-7	2/13/2020		13.0-14.0	**6,500**	71,000	<170	13,000	25,000	10,000	27	21,000	<420	<420	4,000	1,600	53,000
S-7	2/13/2020		14.0-15.0	5,700	63,000	<170	11,000	**38,000**	8,700	24	18,000	<430	<430	3,600	1,500	59,000
S-8	2/12/2020	27.0	3.0-8.0 (Composite Core)	3,900	61,000	<160	15,000	21,000	8,700	<20	20,000	<400	<400	4,400	1,100	50,000
S-8R	2/17/2020		0-1.0	**8,300**	45,000	<180	18,000	22,000	11,000	87	23,000	<450	<450	4,600	1,400	45,000
S-8R	2/17/2020		1.0-2.0	**8,100**	84,000	<210	18,000	17,000	9,900	21	24,000	<510	<510	5,200	1,300	41,000
S-8R	2/17/2020		2.0-3.0	**9,900**	130,000	<180	**21,000**	25,000	10,000	<21	25,000	<450	<450	5,500	1,300	45,000
S-8R	2/17/2020		3.0-4.0	**4,900**	87,000	<200	17,000	**48,000**	10,000	<23	23,000	<490	<490	4,800	1,400	43,000
S-8R	2/17/2020		4.0-5.0	6,300	66,000	<160	14,000	18,000	9,700	<22	25,000	<390	<390	4,100	1,700	40,000
S-9	2/11/2020	33.0	0-5.0 (Composite Core)	**8,400**	83,000	590	**34,000**	**160,000**	**150,000**	**410**	24,000	<490	<490	2,900	1,100	**180,000**
S-9R	2/17/2020		0-1.0	**640,000**	68,000	510	**24,000**	**4,600,000**	**44,000**	80	28,000	**790**	**4,100**	6,500	1,500	**420,000**
S-9R	2/17/2020		1.0-2.0	**7,200**	67,000	<150	15,000	27,000	15,000	42	27,000	<390	<390	4,300	1,800	77,000
S-9R	2/17/2020		2.0-3.0	5,400	67,000	<190	14,000	**39,000**	17,000	23	21,000	<460	<460	3,500	1,400	84,000
S-9R	2/17/2020		3.0-4.0	**6,500**	110,000	<200	**24,000**	**33,000**	**810,000**	24	30,000	<510	<510	4,400	1,600	78,000
S-9R	2/17/2020		4.0-5.0	**6,800**	71,000	190	17,000	**40,000**	**49,000**	70	28,000	**450**	<410	4,300	2,100	87,000
S-10	2/11/2020	33.0	0-5.0 (Composite Core)	**14,000**	79,000	1,300	**31,000**	**130,000**	**51,000**	**260**	24,000	**600**	<420	3,200	1,500	110,000
S-10R A-8 (Co-locate)	2/17/2020		0-1.0	**6,000**	70,000	<170	18,000	**37,000**	**43,000**	54	25,000	<430	<430	4,000	1,700	55,000
				5,100	61,000	<160	14,000	25,000	12,000	73	24,000	<390	<390	3,900	1,700	42,000
S-10R	2/17/2020		1.0-2.0	**6,600**	66,000	<160	15,000	23,000	13,000	34	26,000	<400	<400	4,200	1,800	73,000
S-10R	2/17/2020		2.0-3.0	**6,900**	73,000	<150	15,000	20,000	11,000	93	27,000	<390	<390	4,400	1,900	48,000
S-10R	2/17/2020		3.0-4.0	**6,600**	71,000	<170	15,000	20,000	10,000	<18	28,000	**440**	<420	4,400	1,900	48,000
S-10R	2/17/2020		4.0-5.0	5,700	67,000	<150	14,000	19,000	9,500	<22	27,000	<380	<380	4,400	1,900	44,000
S-11	2/11/2020	30.0	0-5.0 (Composite Core)	4,200	150,000	270	**40,000**	**170,000**	**51,000**	**140**	29,000	<490	<490	5,400	840	140,000
S-11	2/11/2020		5.0-10.0 (Composite Core)	4,000	77,000	340	16,000	**130,000**	**120,000**	34	20,000	<450	<450	3,800	1,000	**220,000**
S-11R	2/13/2020		5.0-6.0	5,800	73,000	280	**21,000**	**140,000**	**30,000**	43	21,000	<400	<400	3,900	1,600	130,000
S-11R	2/13/2020		6.0-7.0	**6,100**	75,000	<160	**21,000**	**43,000**	16,000	<22	21,000	<410	<410	4,100	1,700	74,000
S-11R	2/13/2020		7.0-8.0	**6,100**	75,000	<170	18,000	14,000	9,100	<20	21,000	<410	<410	4,300	1,600	58,000
S-11R	2/13/2020		8.0-9.0	**6,900**	74,000	<160	**19,000**	**57,000**	15,000	<19	20,000	<410	<410	4,100	1,700	74,000
S-11R	2/13/2020		9.0-10.0	**7,800**	76,000	550	**20,000**	**71,000**	16,000	21	23,000	<480	<480	4,300	2,200	110,000
S-12	2/11/2020	33.0	0-5.0 (Composite Core)	**6,700**	63,000	<180	**25,000**	**120,000**	**41,000**	46	25,000	<440	<440	3,700	1,600	82,000
S-12R	2/17/2020		0-1.0	**7,200**	68,000	<160	16,000	**47,000**	15,000	28	24,000	<390	<390	4,200	1,600	53,000
S-12R A-9 (Co-locate)	2/17/2020		1.0-2.0	4,200	110,000	<220	**22,000**	20,000	11,000	<25	31,000	<560	<560	5,900	1,400	54,000
				3,800	120,000	<190	**20,000**	25,000	12,000	26	31,000	<470	<470	5,400	1,300	69,000
S-12R	2/17/2020		2.0-3.0	**6,600**	75,000	<210	16,000	18,000	10,000	<24	28,000	<530	<530	4,800	2,100	51,000
S-12R	2/17/2020		3.0-4.0	**6,100**	77,000	<200	15,000	23,000	13,000	<22	26,000	<500	<500	4,600	1,900	46,000
S-12R	2/17/2020		4.0-5.0	**8,600**	74,000	500	14,000	**70,000**	**27,000**	<19	40,000	**590**	<390	4,700	2,400	90,000
S-13	2/11/2020	29.0	0-5.0 (Composite Core)	**5,900**	43,000	2,000	**30,000**	**1,000,000**	**150,000**	97	30,000	<460	<460	3,000	1,300	**1,100,000**
S-13R	2/13/2020		0-1.0	4,900	96,000	650	**26,000**	**280,000**	**110,000**	**440**	25,000	<550	<550	4,500	1,100	**390,000**
S-13R A-7 (Co-locate)	2/13/2020		1.0-2.0	5,000	90,000	<180	18,000	26,000	11,000	<20	25,000	<450	<450	4,900	1,400	63,000
				4,500	110,000	<200	18,000	17,000	11,000	47	23,000	<490	<490	5,000	1,300	86,000
S-13R	2/13/2020		2.0-3.0	5,400	65,000	<180	14,000	23,000	15,000	<21	21,000	<450	<450	3,800	1,600	50,000
S-13R	2/13/2020		3.0-4.0	**7,400**	68,000	<200	14,000	18,000	10,000	<21	23,000	<500	<500	4,100	1,900	52,000
S-13R	2/13/2020		4.0-5.0	**6,100**	74,000	<170	14,000	15,000	9,000	<23	22,000	<430	<430	3,900	1,600	51,000

Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50)
Generic Soil Cleanup Criteria Tables 2 and 3: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, December 30, 2013

	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thorium	Uranium	Zinc
Residential (µg/Kg)													
Statewide Default Background Levels	5,800	75,000	1,200	18,000	32,000	21,000	130	20,000	410	1,000	NL	NL	47,000
Drinking Water Protection (DWP)	4,600	1.30E+06	6,000	30,000	5.80E+06	7.00E+05	1,700	1.00E+05	4,000	4,500	NL	NL	2.40E+06
Groundwater Surface Water Interface Protection (GSIP)	4,600	4.3E+5 {G}	3,600 {G,X}	3,300	3,300	71,000 {G}	50 {M}; 1.2	75,000 {G}	400	100 {M}; 27	NL	NL	1.6E+5 {G}
Soil Volatilization to Indoor Air Inhalation (SVII)	NLV	NLV	NLV	NLV	NLV	NLV	48,000	NLV	NLV	NLV	NL	NL	NLV
Ambient Air Infinite Source Volatile Soil Inhalation (VSI)	NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV	NL	NL	NLV
Ambient Air Finite VSI for 5 Meter Source Thickness	NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV	NL	NL	NLV
Ambient Air Finite VSI for 2 Meter Source Thickness	NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV	NL	NL	NLV
Ambient Air Particulate Soil Inhalation (PSI)	7.20E+05	3.30E+08	1.70E+06	2.60E+05	1.30E+08	_	2.00E+07	1.30E+07	1.30E+08	6.70E+06	NL	NL	ID
Direct Contact (DC)	7,600	3.70E+07	5.50E+05	2.50E+06	2.00E+07	4.00E+05	1.60E+05	4.00E+07	2.60E+06	2.50E+06	NL	NL	1.70E+08
Nonresidential (µg/Kg)													
Drinking Water Protection (Nonres DWP)	4,600	1.30E+06	6,000	30,000	5.80E+06	7.00E+05	1,700	1.00E+05	4,000	4,500	NL	NL	5.00E+06
Soil Volatilization to Indoor Air Inhalation (Nonres SVII)	NLV	NLV	NLV	NLV	NLV	NLV	89,000	NLV	NLV	NLV	NL	NL	NLV
Ambient Air Infinite Source Volatile Soil Inhalation (Nonres VSI)	NLV	NLV	NLV	NLV	NLV	NLV	62,000	NLV	NLV	NLV	NL	NL	NLV
Ambient Air Finite VSI for 5 Meter Source Thickness	NLV	NLV	NLV	NLV	NLV	NLV	62,000	NLV	NLV	NLV	NL	NL	NLV
Ambient Air Finite VSI for 2 Meter Source Thickness	NLV	NLV	NLV	NLV	NLV	NLV	62,000	NLV	NLV	NLV	NL	NL	NLV
Ambient Air Particulate Soil Inhalation (Nonres PSI)	9.10E+05	1.50E+08	2.20E+06	2.40E+05	5.90E+07	_	8.80E+06	1.60E+07	5.90E+07	2.90E+06	NL	NL	ID
Direct Contact (Nonres DC)	37,000	1.30E+08	2.10E+06	9.20E+06	7.30E+07	9.0E+5 (DD)	5.80E+05	1.50E+08	9.60E+06	9.00E+06	NL	NL	6.30E+08
Screening Levels (µg/Kg)													
Soil Saturation Concentration Screening Levels (Csat)	NA	NA	NA	NA	NA	NA	NA	NL	NA	NA	NL	NL	NA
USEPA Removal Management Levels (RMLs) Industrial Soil RML Table, November 2019													
Industrial Soil (µg/Kg)													
EPA RML (THQ 3.0)	3.00E+05	6.50E+08	2.90E+06	NA	1.40E+08	8.00E+05	1.40E+05	NA	1.80E+07	1.80E+07	NA	7.00E+05	1.10E+09

	Nonresidential Criterion Exceeded
BOLD	Value Exceeds Nonresidential Criterion
bgs	Below Ground Surface (feet)
{G}	Other Alpha notation, please refer to EGLE Footnotes R 299.49 Footnotes for Generic Cleanup Crtieria Tables, December 30, 2013
NA	Not Applicable
NL	Not Listed
NLV	Not Likely to Volatilize
ID	Insufficient Data
ags	Above Ground Surface (feet)

{G} Metal GSIP Criteria for Surface Water Not Protected for Drinking Water Use based on 146 mg/L CaCO3 Hardness: Station ID 259010, Detroit River, near Detroit, MI.

TABLE 4A
SUMMARY OF SOIL ANALYTICAL RESULTS
ON LAND SAMPLES
pH, BOD, PHOSPHORUS
5851 WEST JEFFERSON AVENUE, DETROIT, MICHIGAN
PM PROJECT #01-5303-3-0003

pH (Standard Units) **Biochemial Oxygen Demand (µg/Kg), and Phosphorus (µg/Kg)**			pH	Biochemical Oxygen Demand	Phosphorus
Chemical Abstract Service Number (CAS#)			NA	NA	7223140
Sample ID	**Sample Date**	**Sample Depth (feet bgs)**			
SB-12	2/10/2020	4.0-5.0	NA	NA	NA
SB-12	2/10/2020	9.0-10.0	NA	NA	NA
SB-13	2/10/2020	3.5-4.5	NA	NA	NA
SB-13	2/10/2020	4.5-5.5	NA	NA	NA
SB-14	2/10/2020	1.5-2.5	NA	NA	NA
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50) **Generic Soil Cleanup Criteria Tables 2 and 3: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, December 30, 2013**					
Residential (µg/Kg)					
Statewide Default Background Levels			NL	NL	NA
Drinking Water Protection (Res DWP)			NL	NL	1.30E+06
Groundwater Surface Water Interface Protection (GSIP)			NL	NL	(EE)
Soil Volatilization to Indoor Air Inhalation (Res SVII)			NL	NL	NLV
Ambient Air Infinite Source Volatile Soil Inhalation (Res VSI)			NL	NL	NLV
Ambient Air Finite VSI for 5 Meter Source Thickness			NL	NL	NLV
Ambient Air Finite VSI for 2 Meter Source Thickness			NL	NL	NLV
Ambient Air Particulate Soil Inhalation (Res PSI)			NL	NL	6.70E+07
Direct Contact (Res DC)			NL	NL	1.0E+9 (D)
Nonresidential (µg/Kg)					
Drinking Water Protection (Nonres DWP)			NL	NL	4.80E+06
Soil Volatilization to Indoor Air Inhalation (Nonres SVII)			NL	NL	NLV
Ambient Air Infinite Source Volatile Soil Inhalation (Nonres VSI)			NL	NL	NLV
Ambient Air Finite VSI for 5 Meter Source Thickness			NL	NL	NLV
Ambient Air Finite VSI for 2 Meter Source Thickness			NL	NL	NLV
Ambient Air Particulate Soil Inhalation (Nonres PSI)			NL	NL	2.90E+07
Direct Contact (Nonres DC)			NL	NL	1.0E+9 (D)
Screening Levels (µg/Kg)					
Soil Saturation Concentration Screening Levels (Csat)			NL	NL	NA
USEPA Removal Management Levels (RMLs) **Industrial Soil RML Table, November 2019**					
Industrial Soil (µg/Kg)					
EPA RML (THQ 3.0)			NL	NL	NL

NL	Not Listed
NLV	Not Likely to Volatilize
NA	Not Applicable
	Nonresidential Criteria Exceeded
BOLD	Value Exeeds Nonresidential Criteria
bgs	Below Ground Surface
ags	Above Ground Surface

TABLE 4B
SUMMARY OF ANALYTICAL RESULTS
BANK FAILURE MATERIAL SAMPLES
pH, BOD, PHOSPHORUS
5851 WEST JEFFERSON AVENUE, DETROIT, MICHIGAN
PM PROJECT #01-5303-3-0003

pH (Standard Units) Biochemial Oxygen Demand (µg/Kg), and Phosphorus (µg/Kg)				pH	Biochemical Oxygen Demand	Phosphorus
Chemical Abstract Service Number (CAS#)				NA	NA	NA
Sample ID	**Sample Date**	**Thickness of Water Column (feet ags)**	**Sample Depth (feet bgs)**			
S-1	2/12/2020	25.0	4.0-5.0	8.63	8	270,000
S-2	2/12/2020	12.0-15.0	5.0-7.0	7.95	12	220,000
S-3	2/13/2020	6.0	3.0-4.0	8.18	240,000	450,000
S-3	2/13/2020		7.0-8.0	8.11	3,800,000	190,000
S-4	2/13/2020	12.0	2.0-3.0	10.6	140,000	480,000
S-4	2/13/2020		7.0-8.0	11.0	110,000	280,000
S-5	2/12/2020	12.00	2.0-3.0	9.69	14	250,000
S-5	2/12/2020		14.0-15.0	11.1	7.8	<270,000
S-6	2/13/2020	10.0-12.0	3.0-4.0	9.45	250,000	250,000
A-6 (Co-locate)				9.12	230,000	330,000
S-6	2/13/2020		8.0-9.0	7.97	<26,000	390,000
S-7	2/13/2020	20.0	2.0-3.0	8.01	71,000	320,000
S-7	2/13/2020		8.0-9.0	7.48	<27,000	2,700,000
S-8	2/12/2020	27.0	2.0-3.0	8.62	7.4	630,000
A-3 (Co-locate)				8.71	6.4	410,000
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50) Generic Soil Cleanup Criteria Tables 2 and 3: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, December 30, 2013						
Residential (µg/Kg)						
Statewide Default Background Levels				NL	NL	NA
Drinking Water Protection (Res DWP)				NL	NL	1.30E+06
Groundwater Surface Water Interface Protection (GSIP)				NL	NL	(EE)
Soil Volatilization to Indoor Air Inhalation (Res SVII)				NL	NL	NLV
Ambient Air Infinite Source Volatile Soil Inhalation (Res VSI)				NL	NL	NLV
Ambient Air Finite VSI for 5 Meter Source Thickness				NL	NL	NLV
Ambient Air Finite VSI for 2 Meter Source Thickness				NL	NL	NLV
Ambient Air Particulate Soil Inhalation (Res PSI)				NL	NL	6.70E+07
Direct Contact (Res DC)				NL	NL	1.0E+9 (D)
Nonresidential (µg/Kg)						
Drinking Water Protection (Nonres DWP)				NL	NL	4.80E+06
Soil Volatilization to Indoor Air Inhalation (Nonres SVII)				NL	NL	NLV
Ambient Air Infinite Source Volatile Soil Inhalation (Nonres VSI)				NL	NL	NLV
Ambient Air Finite VSI for 5 Meter Source Thickness				NL	NL	NLV
Ambient Air Finite VSI for 2 Meter Source Thickness				NL	NL	NLV
Ambient Air Particulate Soil Inhalation (Nonres PSI)				NL	NL	2.90E+07
Direct Contact (Nonres DC)				NL	NL	1.0E+9 (D)
Screening Levels (µg/Kg)						
Soil Saturation Concentration Screening Levels (Csat)				NL	NL	NA
USEPA Removal Management Levels (RMLs) Industrial Soil RML Table, November 2019						
Industrial Soil (µg/Kg)						
EPA RML (THQ 3.0)				NL	NL	NL

NL	Not Listed
NLV	Not Likely to Volatilize
NA	Not Applicable
	Nonresidential Criteria Exceeded
BOLD	Value Exceeds Nonresidential Criteria
bgs	Below Ground Surface
ags	Above Ground Surface

TABLE 4C
SUMMARY OF ANALYTICAL RESULTS
RIVER SEDIMENT SAMPLES
pH, BOD, PHOSPHORUS
5851 WEST JEFFERSON AVENUE, DETROIT, MICHIGAN
PM PROJECT #01-5303-3-0003

pH (Standard Units) Biochemial Oxygen Demand (µg/Kg), and Phosphorus (µg/Kg)				pH	Biochemical Oxygen Demand	Phosphorus
Chemical Abstract Service Number (CAS#)				NA	NA	NA
Sample ID	**Sample Date**	**Thickness of Water Column (feet ags)**	**Sample Depth (feet bgs)**			
S-1	2/12/2020	25.0	5.0-10.0 (Composite Core)	8.65	6.7	320,000
S-2	2/12/2020	12.0-15.0	7.0-12.0 (Composite Core)	7.81	7	380,000
S-3	2/13/2020	6.0	10.0-11.0	8.37	37,000	420,000
S-3	2/13/2020		11.0-12.0	8.27	43,000	350,000
S-3	2/13/2020		12.0-13.0	8.14	28,000	360,000
S-3	2/13/2020		13.0-14.0	8.03	35,000	310,000
S-3	2/13/2020		14.0-15.0	8.17	30,000	390,000
S-4	2/13/2020	12.0	2.0-3.0	10.6	140,000	480,000
S-4	2/13/2020		10.0-11.0	7.95	<6,300	310,000
S-4	2/13/2020		11.0-12.0	8.14	<6,300	270,000
S-4	2/13/2020		13.0-14.0	8.02	<6,200	380,000
S-4	2/13/2020		14.0-15.0	7.97	<6,400	460,000
S-5	2/12/2020	12.0	17.0-22.0 (Composite Core)	8.68	8.4	320,000
S-6	2/13/2020	10.0-12.0	12.0-13.0	8.30	26,000	450,000
S-6	2/13/2020		13.0-14.0	8.36	<24,000	450,000
S-6	2/13/2020		14.0-15.0	8.36	<24,000	480,000
S-6	2/13/2020		15.0-16.0	8.45	<24,000	410,000
S-6	2/13/2020		16.0-17.0	8.39	32,000	400,000
S-7	2/13/2020	20.0	10.0-11.0	8.12	<24,000	350,000
S-7	2/13/2020		11.0-12.0	8.19	<24,000	380,000
S-7	2/13/2020		12.0-13.0	8.26	<24,000	400,000
S-7	2/13/2020		13.0-14.0	8.19	<24,000	410,000
S-7	2/13/2020		14.0-15.0	8.17	<24,000	380,000
S-8	2/12/2020	27.0	3.0-8.0 (Composite Core)	8.63	6.9	380,000
S-8R	2/17/2020		0-1.0	8.61	<24	380,000
S-8R	2/17/2020		1.0-2.0	8.65	<26	450,000
S-8R	2/17/2020		2.0-3.0	8.61	39	450,000
S-8R	2/17/2020		3.0-4.0	8.68	63	490,000
S-8R	2/17/2020		4.0-5.0	8.54	<24	450,000
S-9	2/11/2020	33.0	0-5.0 (Composite Core)	8.10	31	500,000
S-9R	2/17/2020		0-1.0	8.53	68	460,000
S-9R	2/17/2020		1.0-2.0	8.53	28	370,000
S-9R	2/17/2020		2.0-3.0	8.41	240	420,000
S-9R	2/17/2020		3.0-4.0	8.45	100	390,000
S-9R	2/17/2020		4.0-5.0	8.40	280	310,000
S-10	2/11/2020	33.0	0-5.0 (Composite Core)	8.83	9.1	310,000
S-10R	2/17/2020		0-1.0	8.51	260	390,000
A-8 (Co-locate)				8.43	280	450,000
S-10R	2/17/2020		1.0-2.0	8.36	150	370,000
S-10R	2/17/2020		2.0-3.0	8.34	140	410,000
S-10R	2/17/2020		3.0-4.0	8.19	<24	360,000
S-10R	2/17/2020		4.0-5.0	8.21	<24	330,000
S-11	2/11/2020	30.0	0-5.0 (Composite Core)	8.57	7.7	530,000
S-11	2/11/2020		5.0-10.0 (Composite Core)	8.66	9	450,000
S-11R	2/13/2020		5.0-6.0	8.44	<24,000	340,000
S-11R	2/13/2020		6.0-7.0	8.34	<24,000	380,000
S-11R	2/13/2020		7.0-8.0	8.46	<24,000	420,000
S-11R	2/13/2020		8.0-9.0	8.39	<25,000	410,000
S-11R	2/13/2020		9.0-10.0	8.41	<25,000	370,000
S-12	2/11/2020	33.0	0-5.0 (Composite Core)	8.72	26	460,000
S-12R	2/17/2020		0-1.0	8.59	120	410,000
S-12R	2/17/2020		1.0-2.0	8.51	88	460,000
A-9 (Co-locate)				8.64	<27	470,000
S-12R	2/17/2020		2.0-3.0	8.26	85	450,000
S-12R	2/17/2020		3.0-4.0	8.28	<25	400,000
S-12R	2/17/2020		4.0-5.0	8.25	55	430,000
S-13	2/11/2020	29.0	0-5.0 (Composite Core)	8.57	18	450,000
S-13R	2/13/2020		0-1.0	8.13	<28,000	490,000
S-13R	2/13/2020		1.0-2.0	8.40	<26,000	420,000
A-7 (Co-locate)				8.31	48,000	480,000
S-13R	2/13/2020		2.0-3.0	8.43	<24,000	360,000
S-13R	2/13/2020		3.0-4.0	8.45	<24,000	380,000
S-13R	2/13/2020		4.0-5.0	8.44	180,000	390,000
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50) Generic Soil Cleanup Criteria Tables 2 and 3: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, December 30, 2013						
Residential (µg/Kg)						
Statewide Default Background Levels				NL	NL	NA
Drinking Water Protection (Res DWP)				NL	NL	1.30E+06
Groundwater Surface Water Interface Protection (GSIP)				NL	NL	(EE)
Soil Volatilization to Indoor Air Inhalation (Res SVII)				NL	NL	NLV
Ambient Air Infinite Source Volatile Soil Inhalation (Res VSI)				NL	NL	NLV
Ambient Air Finite VSI for 5 Meter Source Thickness				NL	NL	NLV
Ambient Air Finite VSI for 2 Meter Source Thickness				NL	NL	NLV
Ambient Air Particulate Soil Inhalation (Res PSI)				NL	NL	6.70E+07
Direct Contact (Res DC)				NL	NL	1.0E+9 (D)
Nonresidential (µg/Kg)						
Drinking Water Protection (Nonres DWP)				NL	NL	4.80E+06
Soil Volatilization to Indoor Air Inhalation (Nonres SVII)				NL	NL	NLV
Ambient Air Infinite Source Volatile Soil Inhalation (Nonres VSI)				NL	NL	NLV
Ambient Air Finite VSI for 5 Meter Source Thickness				NL	NL	NLV
Ambient Air Finite VSI for 2 Meter Source Thickness				NL	NL	NLV
Ambient Air Particulate Soil Inhalation (Nonres PSI)				NL	NL	2.90E+07
Direct Contact (Nonres DC)				NL	NL	1.0E+9 (D)
Screening Levels (µg/Kg)						
Soil Saturation Concentration Screening Levels (Csat)				NL	NL	NA
USEPA Removal Management Levels (RMLs) Industrial Soil RML Table, November 2019						
Industrial Soil (µg/Kg)						
EPA RML (THQ 3.0)				NL	NL	NL

NL	Not Listed
NLV	Not Likely to Volatilize
NA	Not Applicable
	Nonresidential Criteria Exceeded
BOLD	Value Exceeds Nonresidential Criteria
bgs	Below Ground Surface
ags	Above Ground Surface

TABLE 5A
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
VOCs, PNAs, PCBs, METALS
5851 WEST JEFFERSON AVENUE, DETROIT, MICHIGAN
PM PROJECT #01-5303-3-0003

Volatile Organic Compounds (VOCs), Polynuclear Aromatic Compounds (PNAs), Polychlorinated Biphenyls (PCBs), and Metals (µg/L)				Chloroform	Other VOCs	Polynuclear Aromatic Compounds	Polychlorinated Biphenyls	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Mercury	Selenium	Silver	Zinc	Nickel	Thorium	Uranium
Chemical Abstract Service Number (CAS#)				67663	Various	Various	1336363	7440382	7440393	7440439	16065831	7440508	7439921	7439976	7782492	7440224	7440666	7440020	7440291	7440611
Sample ID	**Sample Date**	**Screen Depth (bgs)**	**Depth to Groundwater (bgs)**	**VOCs**		**PNAs**	**PCBs**	**MICHIGAN TEN METALS**										**OTHER METALS**		
TMW-12	2/20/2020	2.70-7.70	2.66	<1.0	<MDL	<MDL	<MDL	**13**	200	**15**	**46**	**1,200**	**110**	**0.25**	<5	<5	**3,300**	25	<5	<5
TMW-13	2/20/2020	3.58-8.58	4.59	<1.0	<MDL	<MDL	<MDL	<5	79	<2	<5	**16**	<5	<0.20	<5	<5	**670**	7.9	<5	11
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50)																				
Generic Groundwater Cleanup Criteria Table 1: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, June 25, 2018																				
Residential/Nonresidential (µg/L)																				
Residential Drinking Water (Res DW)				80 {A,W}	Various	Various	0.5 {A}	10 {A}	2,000 {A}	5.0 {A}	100 {A}	1,000 {E}	4.0 {L}	2.0 {A}	50 {A}	34	2,400	100 {A}	NL	NL
Residential Health Based Drinking Water Values				NL	Various	Various	NL	NL	NL	NL	NL	1,400 {E}	NL	NL	NL	NL	NL	NL	NL	NL
Nonresidential Drinking Water (Nonres DW)				80 {A,W}	Various	Various	0.5 {A}	10 {A}	2,000 {A}	5.0 {A}	100 {A}	1,000 {E}	4.0 {L}	2.0 {A}	50 {A}	98	5,000 {E}	100 {A}	NL	NL
Nonresidential Health Based Drinking Water Values				NL	Various	Various	NL	NL	NL	NL	NL	4,000 {E}	NL	NL	NL	NL	NL	NL	NL	NL
Groundwater Surface Water Interface (GSI)				350	Various	Various	0.2 {M}; 2.6E-5	10	650 {G}	3 {G,X}	11	12 {G}	16 {G,X}	0.0013	5.0	0.2 {M}; 0.06	160 {G}	75,000	NL	NL
Residential Groundwater Volatilization to Indoor Air Inhalation (Res GVII) [1]				28,000	Various	Various	45 {S}	NLV	NLV	NLV	NLV	NLV	NLV	56 {S}	NLV	NLV	NLV	NLV	NL	NL
Nonresidential Groundwater Volatilization to Indoor Air Inhalation (Nonres GVII) [1]				1.80E+05	Various	Various	45 {S}	NLV	NLV	NLV	NLV	NLV	NLV	56 {S}	NLV	NLV	NLV	NLV	NL	NL
Volatilization to Indoor Air Screening Levels (µg/L)																				
Water Solubility				7.92E+06	Various	Various	44.7	NA	NA	NA	NA	NA	NA	56	NA	NA	NA	NA	NL	NL
Flammability and Explosivity Screening Level				ID	Various	Various	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	NL	NL
USEPA Removal Management Levels (RMLs)																				
Residential Tapwater RML Table, November 2019																				
MCL (µg/L)																				
EPA RML (THQ 3.0)				80	Various	Various	NA	10	2,000	5	100	1300	15	2	50	NA	NA	NA	NA	30

{G} Metal GSIP Criteria for Surface Water Not Protected for Drinking Water Use based on 146 mg/L CaCO3 Hardness: Station ID 259010, Detroit River, near Detroit, MI.

	Nonresidential Criteria or MCL Exceeded
BOLD	Value Exceeds Nonresidential Criteria or MCL
bgs	Below Ground Surface (feet)
<MDL	Not detected at levels above the laboratory Method Detection Limit (MDL) or Minimum Quantitative Level (MQL)
NA	Not Applicable
NL	Not Listed
NLL	Not Likely to Leach
NLV	Not Likely to Volatilize
ID	Insufficient Data
5.0 {A}	Other Alpha notation, please refer to EGLE Footnotes R 299.49 Footnotes for Generic Cleanup Crtieria Tables, December 30, 2013

TABLE 5B
SUMMARY OF SURFACE WATER ANALYTICAL RESULTS
VOCs, PNAs, PCBs, METALS
5851 WEST JEFFERSON AVENUE, DETROIT, MICHIGAN
PM PROJECT #01-5303-3-0003

Volatile Organic Compounds (VOCs), Polynuclear Aromatic Compounds (PNAs), Polychlorinated Biphenyls (PCBs), and Metals (µg/L)				Volatile Organic Compounds	Polynuclear Aromatic Compounds	Polychlorinated Biphenyls	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Mercury	Selenium	Silver	Zinc	Nickel	Thorium	Uranium
Chemical Abstract Service Number (CAS#)				Various	Various	1336363	7440382	7440393	7440439	16065831	7440508	7439921	7439976	7782492	7440224	7440666	7440020	7440291	7440611
Sample ID	**Sample Date**	**Screen Depth (bgs)**	**Depth to Groundwater (bgs)**	**VOCs**	**PNAs**	**PCBs**	**MICHIGAN TEN METALS**										**OTHER METALS**		
P1	2/10/2020	NA	Surface Water	<MDL	<MDL	<0.20	<5	15	<2	<5	<5	<5	<0.20	<5	<5	14	<5	<5	<5
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50)																			
Generic Groundwater Cleanup Criteria Table 1: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, June 25, 2018																			
Residential/Nonresidential (µg/L)																			
Residential Drinking Water (Res DW)				Various	Various	0.5 {A}	10 {A}	2,000 {A}	5.0 {A}	100 {A}	1,000 {E}	4.0 {L}	2.0 {A}	50 {A}	34	2,400	100 {A}	NL	NL
Residential Health Based Drinking Water Values				Various	Various	NL	NL	NL	NL	NL	1,400 {E}	NL	NL	NL	NL	NL	NL	NL	NL
Nonresidential Drinking Water (Nonres DW)				Various	Various	0.5 {A}	10 {A}	2,000 {A}	5.0 {A}	100 {A}	1,000 {E}	4.0 {L}	2.0 {A}	50 {A}	98	5,000 {E}	100 {A}	NL	NL
Nonresidential Health Based Drinking Water Values				Various	Various	NL	NL	NL	NL	NL	4,000 {E}	NL	NL	NL	NL	NL	NL	NL	NL
Groundwater Surface Water Interface (GSI)				Various	Various	0.2 {M}; 2.6E-5	10	650 {G}	3 {G,X}	11	12 {G}	16 {G,X}	0.0013	5.0	0.2 {M}; 0.06	160 {G}	75,000	NL	NL
Residential Groundwater Volatilization to Indoor Air Inhalation (Res GVII) [1]				Various	Various	45 {S}	NLV	NLV	NLV	NLV	NLV	NLV	56 {S}	NLV	NLV	NLV	NLV	NL	NL
Nonresidential Groundwater Volatilization to Indoor Air Inhalation (Nonres GVII) [1]				Various	Various	45 {S}	NLV	NLV	NLV	NLV	NLV	NLV	56 {S}	NLV	NLV	NLV	NLV	NL	NL
Volatilization to Indoor Air Screening Levels (µg/L)																			
Water Solubility				Various	Various	44.7	NA	NA	NA	NA	NA	NA	56	NA	NA	NA	NA	NL	NL
Flammability and Explosivity Screening Level				Various	Various	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	NL	NL
USEPA Removal Management Levels (RMLs) Residential Tapwater RML Table, November 2019																			
MCL (µg/L)																			
EPA RML (THQ 3.0)				Various	Various	NA	10	2,000	5	100	1300	15	2	50	NA	NA	NA	NA	30

{G} Metal GSIP Criteria for Surface Water Not Protected for Drinking Water Use based on 146 mg/L CaCO3 Hardness: Station ID 259010, Detroit River, near Detroit, MI.

	Nonresidential Criteria or MCL Exceeded
BOLD	Value Exceeds Nonresidential Criteria or MCL
bgs	Below Ground Surface (feet)
<MDL	Not detected at levels above the laboratory Method Detection Limit (MDL) or Minimum Quantitative Level (MQL)
NA	Not Applicable
NL	Not Listed
NLL	Not Likely to Leach
NLV	Not Likely to Volatilize
ID	Insufficient Data
5.0 {A}	Other Alpha notation, please refer to EGLE Footnotes R 299.49 Footnotes for Generic Cleanup Crtieria Tables, December 30, 2013

TABLE 6A
SUMMARY OF ANALYTICAL RESULTS
BANK FAILURE MATERIAL SAMPLES
TCLP METALS
5851 W JEFFERSON AVENUE, DETROIT, MICHIGAN
PM PROJECT #01-5303-3-0003

Toxicity Characteristic Leaching Procedure (mg/L)			Arsenic	Cadmium	Chromium	Lead
Chemical Abstract Service Number (CAS#)			7440382	7440439	16065831	7439921
Sample ID	**Sample Date**	**Screen Depth (bgs)**	**TCLP Arsenic**	**TCLP Cadmium**	**TCLP Chromium**	**TCLP Lead**
S-2	2/12/2020	5.0-7.0	NA	NA	NA	<0.050
S-3	2/13/2020	3.0-4.0	NA	NA	<0.050	0.29
S-3	2/13/2020	7.0-8.0	NA	NA	<0.050	0.73
S-4	2/13/2020	2.0-3.0	NA	0.25	NA	0.28
S-4	2/13/2020	7.0-8.0	NA	**1.2**	NA	1.1
S-5	2/12/2020	14.0-15.0	NA	NA	NA	0.052
S-6	2/13/2020	3.0-4.0	NA	NA	NA	<0.050
A6 (Co-locate)			NA	NA	NA	0.23
S-7	2/13/2020	2.0-3.0	NA	NA	<0.050	NA
S-7	2/13/2020	8.0-9.0	NA	NA	NA	0.16
40 CFR 261.24 - Toxicity Characteristic						
Regulatory Levels (mg/L)						
Toxicity Characteristic Concentration			5	1	5	5

Regulatory Concentration Exceeded

BOLD Value Exceeds Regulatory Concentration

bgs Below Ground Surface (feet)

NA Not Applicable

TABLE 6B
SUMMARY OF ANALYTICAL RESULTS
ON LAND SOIL AND RIVER SEDIMENT SAMPLES
TCLP METALS
5851 W JEFFERSON AVENUE, DETROIT, MICHIGAN
PM PROJECT #01-5303-3-0003

Toxicity Characteristic Leaching Procedure (mg/L)			Arsenic	Cadmium	Chromium	Lead
Chemical Abstract Service Number (CAS#)			7440382	7440439	16065831	7439921
Sample ID	**Sample Date**	**Screen Depth (bgs)**	**TCLP Arsenic**	**TCLP Cadmium**	**TCLP Chromium**	**TCLP Lead**
S-9	2/11/2020	0-5.0	NA	NA	NA	<0.050
S-9R	2/17/2020	0-1.0	<0.050	NA	NA	NA
S-9R	2/17/2020	3.0-4.0	NA	NA	NA	<0.050
S-11	2/11/2020	5.0-10.0	NA	NA	NA	<0.050
S-13	2/11/2020	0-5.0	NA	NA	NA	0.48
S-13R	2/13/2020	0-1.0	NA	NA	NA	<0.050
SB-13	2/10/2020	3.5-4.5	NA	NA	0.50	NA
SB-13	2/10/2020	4.5-5.5	NA	NA	<0.050	0.21
40 CFR 261.24 - Toxicity Characteristic						
Regulatory Levels (mg/L)						
Toxicity Characteristic Concentration			5	1	5	5

Regulatory Concentration Exceeded
BOLD Value Exceeds Regulatory Concentration
Value Exceeds Applicable Screening Level
underline Applicable Screening Level Exceeded
bgs Below Ground Surface (feet)
<MDL Not detected at levels above the laboratory Method Detection Limit (MDL) or Minimum Quantitative Level (MQL)
[1] Tier 1 GVII Criteria based on 3 meter (or greater) groundwater depth
[3] (2013 Vapor Intrusion Guidance) Screening Levels based on depth to groundwater less than 1.5 meters and not in contact with building foundation
[4] (2013 Vapor Intrusion Guidance) Screening levels based on groundwater in contact with the building foundation or within a sump
NA Not Applicable

TABLE 7
SUMMARY OF ANALYTICAL RESULTS
QA/QC SAMPLES
5851 WEST JEFFERSON AVENUE, DETROIT, MICHIGAN
PM PROJECT #01-5303-3-0003

Quality Assurance/Quality Control Samples Volatile Organic Compounds (VOCs), Polynuclear Aromatic Compounds (PNAs), Polychlorinated Biphenyls (PCBs), and Metals (µg/L)			Volatile Organic Compounds	Polynuclear Aromantic Compounds	Polychlorinated Biphenyls	Metals
Chemical Abstract Service Number (CAS#)			Various	Various	1336363	Various
Sample ID	**Sample Date**	**Sample Depth (feet bgs)**	**VOCs**	**PNAs**	**PCBs**	**Metals**
A1 (Field Blank)	2/10/2020	NA	<MDL	<MDL	<MDL	<MDL
A2 (Equipment Blank)	2/10/2020	NA	<MDL	<MDL	<MDL	<MDL
A-4 (Field Blank)	2/12/2020	NA	<MDL	<MDL	<MDL	<MDL
A-5 (Equipment Blank)	2/12/2020	NA	<MDL	<MDL	<MDL	<MDL
Trip Blank #1	2/10/2020	NA	<MDL	<MDL	<MDL	<MDL
Trip Blank #2	2/11/2020	NA	<MDL	<MDL	<MDL	<MDL
Trip Blank #3	2/13/2020	NA	<MDL	<MDL	<MDL	<MDL

NA Not Applicable
MDL Method Detection Limits
bgs Below ground surface
Note: Results of Co-located samples are included with corresponding parent samples in Tables 1A through 6.

Appendix A

PM ENVIRONMENTAL Environmental & Engineering Services

CONSULTING GROUP

Report on Geotechnical Investigation

Revere Dock, LLC
5851 W. Jefferson Avenue
Detroit, Michigan 48221

Latitude 42.299667˚ N
Longitude -83.092269˚ W

Prepared for:

Revere Dock, LLC
3128 Three Mile Road NW
Grand Rapids, Michigan 49534

G2 Project No. 193662
March 10, 2020

g2consultinggroup.com

Headquarters	1866 Woodslee St	Troy, MI 48083	P 248.680.0400	F 248.680.9745
Ann Arbor	1350 Eisenhower Pl	Ann Arbor, MI 48108	P 734.390.9330	F 734.390.9331
Chicagoland	1186 Heather Dr	Lake Zurich, IL 60047	P 847.353.8740	F 847.353.8742

CONSULTING GROUP

March 10, 2020

Mr. Steve Erikson
Revere Dock, LLC
3128 Three Mile Road NW
Grand Rapids, Michigan 49534

Re: Report on Geotechnical Investigation
Revere Dock , LLC
5851 W. Jefferson Avenue
Detroit, Michigan 48221
G2 Project No. 193662

Dear Mr. Erikson:

We have completed the geotechnical investigation for the slope stability failure at the Detroit Revere Dock located at 5851 W. Jefferson Avenue in Detroit, Michigan. This report presents the results of our observations and analysis and our recommendations for earthwork operations, construction considerations, and corrective actions as they relate to the geotechnical conditions on site.

We appreciate the opportunity to be of service to Revere Dock, LLC and look forward to discussing the recommendations presented. In the meantime, if you have any questions regarding the report or any other matter pertaining to the project, please call us.

Sincerely,

G2 Consulting Group, LLC

Tyler Hesse

Tyler S. Hesse, E.I.T.
Staff Engineer

Mark S. Stapleton

Mark S. Stapleton, P.E.
Project Manager / Associate

TSH/MSS/mss

Enclosures

EXECUTIVE SUMMARY

It is our understanding that the project consists of performing corrective actions to a failing slope and seawall at the Revere Dock property located at 5851 W. Jefferson Avenue in Detroit, Michigan. In addition, we understand that the failure occurred along the shoreline within the southeastern portion of the property.

Very loose to compact granular fill soils consisting of sand, gravelly sand, gravel, and sandy gravel are present at the ground surface within the soil boring locations and extends approximately 12 to 20 feet below the ground surface. Very soft to stiff native silty clay soils underlie the fill soils within the boring locations and extend to depths ranging from 91 to 98 feet. Hardpan soils consisting of sand and clay underlie the native silty clay soils within the boring locations and extends to the explored depth ranging from 96 to 105 feet. Groundwater measurements were taken during and upon completion of drilling operations. During drilling operations, groundwater was encountered at depths ranging from 2-1/2 to 4 feet below the ground surface (Elevation 574.5 to 575 feet). Due to mud rotary drilling operations, groundwater measurements could not be measured upon completion of drilling operations; however, water levels should be comparable to the water level elevation of the Detroit River.

After the reported deep-seated rotational slope movements at the project site, we have conducted Unmanned Aerial Vehicle (UAV) operations of the property to observe and document visual conditions of the site. These operations capture images and these data were used to prepare topographic information. Based on review of the data we collected to date, it appears that site contours have not deviated much and the surface of the ponded area within the reported failure continues to fluctuate somewhat.

Fence, moisture, and cohesion plots were created in order to determine soil profiles to be utilized in the design process. Furthermore, four soil profiles were utilized: short term and long-term conditions, as well as within and outside the failure zone.

The observed ground movements along the shoreline are a direct result of surcharge loading. We also conclude that to provide for an aggregate handling facility on this project site to facilitate modern lake freighters, a vertical continuous wall seated about 2 feet into the underlying hardpan is required. Forcing the slope failure into the hardpan provides for the resistance needed to provide for a stable shoreline while facilitating an off-loading facility.

The wall system proposed consists of a sheet pile hybrid consisting of Z-shaped steel sheet pile in combination with steel pipe pile. This system is to be driven into hardpan to provide the required vertical face with 27-feet of draft to facilitate lake freights. Each pipe pile requires a steel tie-rod which is attached to pile supported concrete dead-men pile caps. The lateral resistance required for the steel pile wall is provided by driven battered piles. Tiebacks are spaced a little less than 10-foot on center.

Do not consider this summary separate from the entire text of this report, with all the conclusions and qualifications mentioned herein. Details of our analysis and recommendations are discussed in the following sections and in the Appendices of this report.

PROJECT DESCRIPTION

It is our understanding that the project consists of performing corrective actions to a failing slope and seawall at the Revere Dock property located at 5851 W. Jefferson Avenue in Detroit, Michigan. In addition, we understand that the failure occurred along the shoreline within the southeastern portion of the property.

It was reported to us that the failure occurred after stockpiling aggregate within the vicinity of the shoreline. Once the failure occurred, the stockpiled soils were removed, as well as aggregates that slipped below the ground surface from the slope failure. The removal of these aggregates resulted in an excavation with ponded water. In order to prevent the migration of contaminated soils into the Detroit River, a stone berm and turbidity curtains were placed between the ponding area and river.

We understand that the eastern portion of the thickened concrete slab (pile cap) along the shoreline has collapsed into the Detroit River. In addition to the thickened slab, a Great Lakes Water Authority (GLWA) sewer outfall structure located on the east end of the shoreline has been affected by the shoreline movements.

The purpose of this geotechnical investigation was to determine soil parameters pertinent to slope stability evaluation, seawall reconstruction design, and to develop a corrective action plan.

PREVIOUS INVESTIGATIONS

G2 previously performed a condition survey and geotechnical investigation within the Revere Dock, LLC development in order to construct a heavy lift dock along the shoreline. This investigation was performed in two phases.

Previous Existing Seawall Evaluation Report dated March 1, 2016

The previous Seawall Evaluation report was dated March 1, 2016. This investigation was to observe and evaluate the components of the existing seawall, concrete cap, and tie-back system and provide recommendations for further study of the wall system. The scope of the condition survey consisted of the following:

1. We performed five (5) test pits to observe the existing sea wall and anchor system. The test pits were performed adjacent to the concrete cap and along the tie-back system. The test pits ranged in depth from 6 to 7 feet below the existing grade.

2. An underwater observation of the existing wall system was performed by qualified divers. The divers performed a visual evaluation of the seawall and made measurements of the observed piles, dredge line, and concrete wall.

3. We prepared an engineering report, dated March 1, 2016, including a description of the existing wall system and recommendations regarding the integrity of the existing wall system.

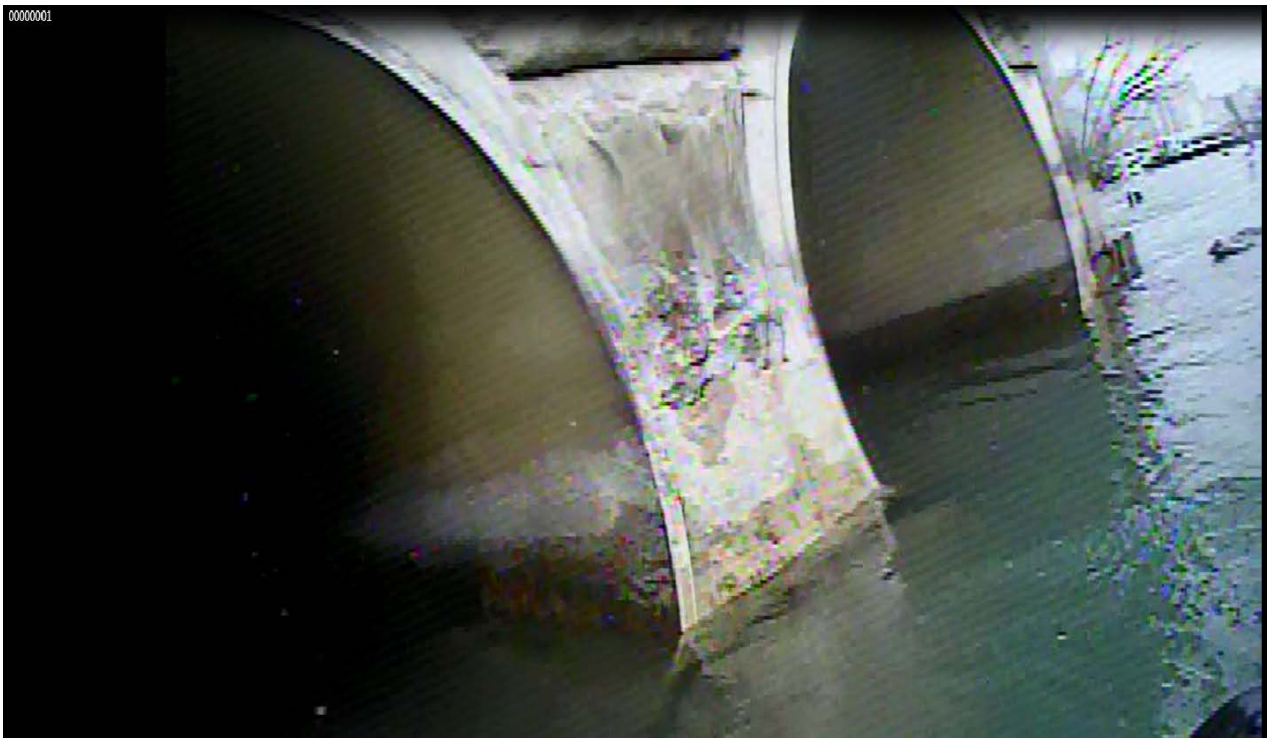
   The full condition survey report is presented in Appendix C of this report. A summary of the conditions observed during excavation and diving operations are as follows:

EXISTING OBSERVATIONS

DWSD Outfall

The outfall structure is located at the north end of the project site and consist of a reinforced concrete box approximately 26 feet wide and extends approximately 14-1/2 feet from the top of the box to the river bottom. The top of the box is approximately 7-1/2 feet above the river elevation. Three 70-inch diameter pipes are present within the box. The distance from the north edge of the box to the first,

second, and third pipes were measured to be 5-1/2 feet, 13 feet, and 20 feet, respectively. The distance from the top of the box to the pipe crowns was measured to be 3-1/2 feet. Approximately 18 to 24 inches of standing water was observed within the pipes.



Outfall Structure

The reinforced concrete box is supported on 12-inch to 18-inch diameter timber piles with 4-inch thick Wakefield sheeting spanning from pile to pile. The piles are spaced approximately 42-inches to 52-inches on center. The Wakefield sheeting is highly detreated with large gaps from the bottom of the structure to the top of the sheeting.

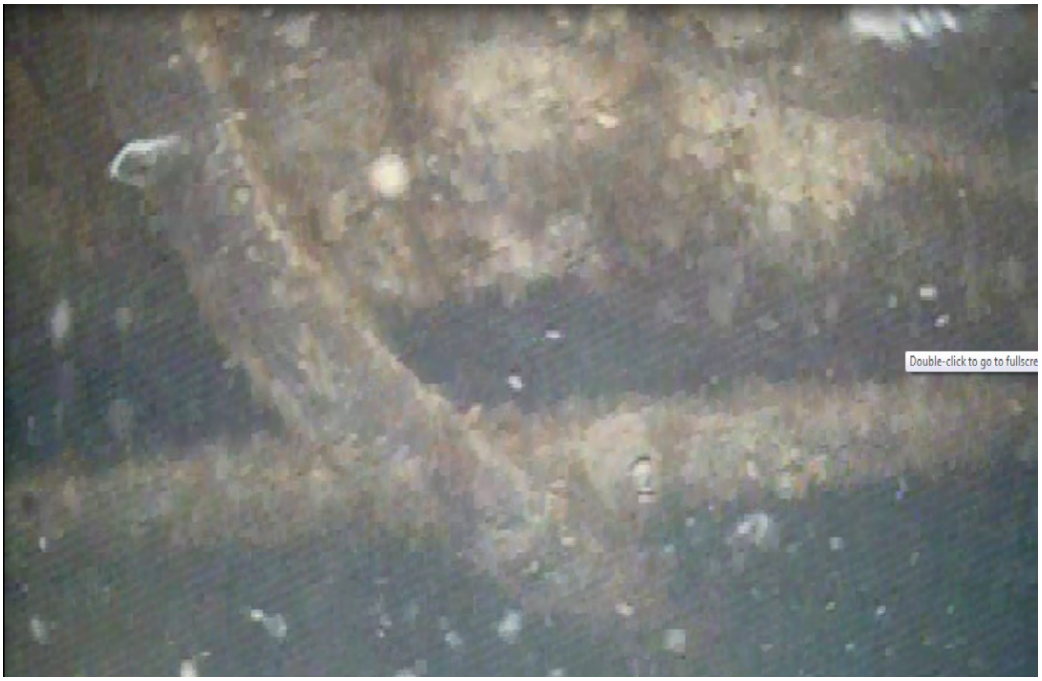
Sea Wall

The existing sea wall consist of a reinforced concrete retaining wall, with concrete dead-men, sitting on a concrete base slab supported on timber piles. Wakefield sheets span the timber piles.

Reinforced Concrete Wall

The reinforced concrete structure consists of a trapezoidal concrete wall supported on a concrete base slab. The water face of the wall is vertical and is approximately 7 feet tall. Approximately 24 to 30 inches of the wall is submerged in the river. The top of the wall is 2 feet wide and the base of the wall is approximately 5 feet wide. The concrete slab extends 5 feet inland from the edge of the wall. The base slab was approximated to be 1 foot thick. The actual thickness of the slab could not be determined due to the presence of water within the test pits. Please see the Figure No.1 in the Appendix of this report for an approximate cross section of the existing sea wall.

The water side of the concrete appears to be damaged and deteriorating. The concrete appears to have been damaged by vessel impact and ice flow and has exposed the reinforcing steel. The exposed reinforcing steel will compromise the structural capacity of the existing wall system.



Exposed Reinforcing Steel at the Base of the Concrete Wall

Timber Piles

The reinforced concrete structure is support on timber piles 12 to 18 inches in diameter. The piles are arranged in a grid pattern spaced from 42 to 60-inches on center parallel to the existing sea wall. Three rows of piles are present underneath the structure and are spaced at 42 to 52-inches on center. The total length of the timber piles could not be determined; however, our experience is that timber piles range from 40 to 50 feet in length.

Timber Pile Measurement

Wakefield Sheeting

In general, Wakefield sheeting spans from timber pile to timber pile landward of the third row of piles. The Wakefield sheeting runs horizontally and is approximately 4-inches thick and 12-inches wide. The sheeting is supported with wales consisting of 6 x 12 timber planks. The sheeting is highly deteriorated. The diving inspector observed areas where the sheeting had completely rotted and left gaps (some approximately 3 feet) between the bottom of the concrete base slab and the top of the sheeting. The river bottom slopes upward from the water face side for the sea wall to the Wakefield sheeting. The water depth at the water face side of the sea wall was measured to vary from approximately 10 feet to 16 feet.

Wakefield Sheeting

Anchor System

The anchor system consists of concrete dead-men and steel ties rods spaced at approximately 16 feet on center. The tie rod appears to be a 2-inch outside diameter threaded steel rod. The two exposed concrete dead-men are located approximately 75 and 90 feet behind the water face of the reinforced concrete retaining wall. The concrete dead-man are approximately 3 feet wide, 3 feet deep, and 7 feet long.

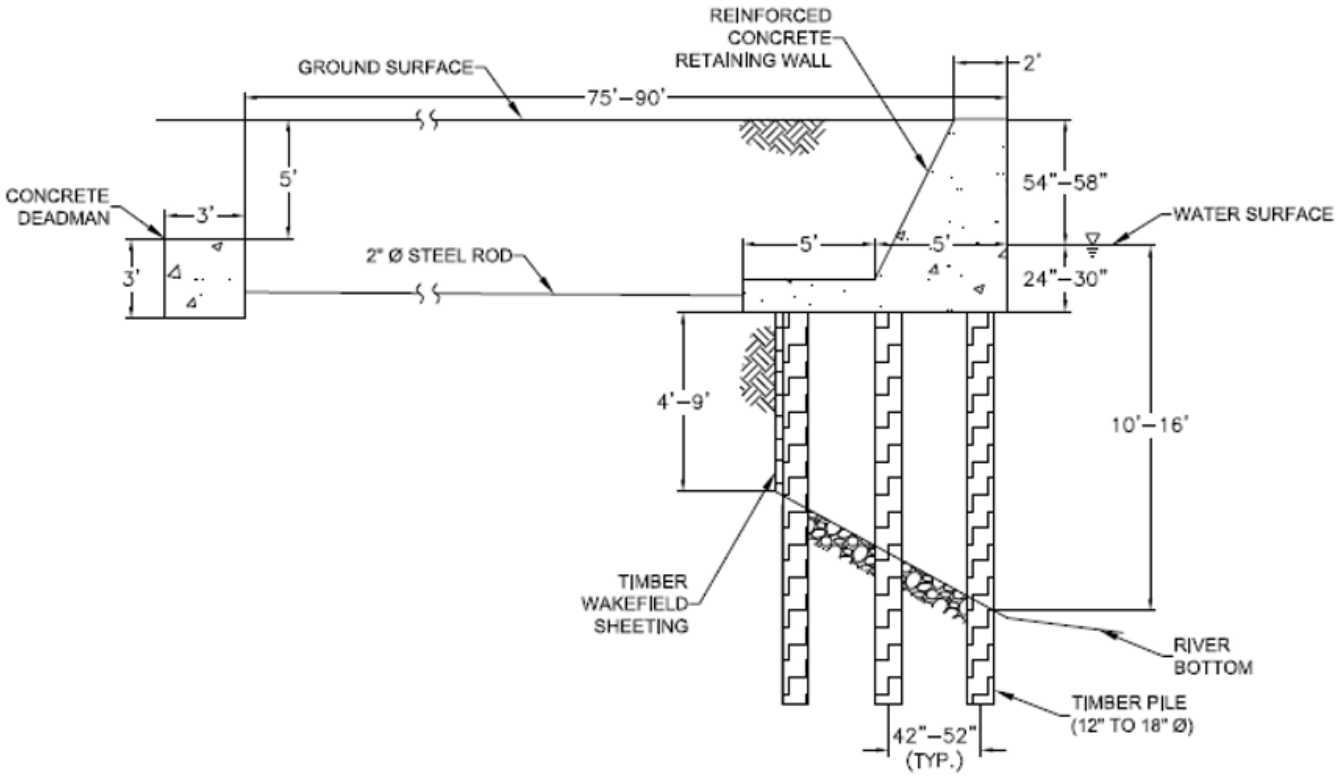
The concrete dead-man appear to be in relatively good condition; however, the steel tie rods and the tensioning turnbuckle are in very poor condition. Also, the G2 representative noted that the tie rods appeared to have little tension on them which would indicate the wall anchorage system is not functioning as intended.

Back of Concrete Deadman

Front of Concrete Deadman and Tie Rod Connection

Corroded Tie-Rod to Concrete Deadman Connection

The following figure is presented in the below figure to generalize the existing shoreline structure:



Existing Seawall Cross-Section

Based on the information we gathered during this previous study, it was our opinion that the current sea wall system at that time was designed for shallow drag vessels such as tugs and barges. In addition, the existing sea wall, in its deteriorated state at that time, had little to no capability to support lateral loads. Since the future plan at that time included the facilitating and mooring of the current fleet of Great Lakes freighters, it was our opinion that the existing structure at that time would not support the then proposed development and a new sea wall system was required.

Previous Geotechnical Investigation Report Dated September 2, 2016

This previous geotechnical investigation report was dated September 2, 2016. This phase of the investigation was to perform soil borings in order to determine the geotechnical conditions on site, and the evaluate the adequacy of the existing seawall to support surcharge loads resulting from proposed structures and staging areas located within 100 feet of the shoreline. The scope of the geotechnical investigation consisted of the following:

1. We drilled a total of four (4) soil borings within the proposed development. Soil borings B-1 through B-3 were performed along the shoreline and extended to bedrock, which was encountered between 100 and 105 feet below the existing ground surface. B-4 was performed near the existing GLWA outfall structure and extended to a depth of 50 feet below the ground surface. The proposed Scope of Work called for boring B-4 to extend to a depth of 30 feet; however, the boring was extended to 50 feet in the field in order to gain additional soils data.

2. We performed laboratory testing on representative samples obtained from the soil borings. Laboratory testing included visual engineering classification, natural moisture content, dry density,

and unconfined compressive strength determinations.

3. We prepared an engineering report, dated September 2, 2016. Our report included recommendations regarding the proposed seawall, crane pad, sewer outlet, and construction considerations related to site preparation and construction.

Based on this investigation, we concluded that the existing seawall consists of a reinforced concrete retaining wall, with concrete dead-men, sitting on a concrete base slab supported on timber piles. Wakefield sheets span the timber piles. Our conclusion was that the wall was not sufficient for the site's intended use, to stockpile materials in the vicinity of the existing shoreline.

This previous report went on to make recommendation relative to the then planned heavy lift operations proposed for this site. Based on the parameter we understood at that time, we recommended the proposed seawall consist of a steel sheet and king pile system with tiebacks. The sheeting and king piles would be installed in front of the existing concrete seawall, and the void beneath the concrete slab would be backfilled. Our analysis shows, a seawall with one row of tiebacks requires a wall section 106 feet long with a section modulus of 915.5 in^3 per foot. The tiebacks, placed 6 feet from the top of the wall and spaced at 10 feet on center, would require a capacity in excess of 855 kips.

In addition, we made recommendations for a crane pad to support proposed loading conditions. We recommended HP 12x53 piles bearing within the shale be used for the support of the crane pad. A nominal pile capacity of 350 kips can be used for design of the foundations for piles bearing within competent rock. Based on the encountered subsurface conditions, we anticipate pile tip elevations will range from -9 to 2 feet.

The full geotechnical report, addressing field operations, laboratory testing, encountered soil and groundwater conditions, and recommendations is presented in Appendix D.

CURRENT INVESTIGATION - SCOPE OF SERVICES

Based on information provided to us in December 2019, a large-scale slope failure occurred along the shoreline of the subject property. As a result, we performed this geotechnical investigation. The purpose of our exploration is to determine and evaluate the general subsurface conditions at the site and develop related slope stability and corrective action recommendations as they relate to the proposed development.

The field operations, laboratory testing, and engineering report preparation were performed under direction and supervision of a licensed professional engineer. Our services were performed according to generally accepted standards and procedures in the practice of geotechnical engineering in this area. Our scope of services for this project is as follows:

1. We drilled five (5) soil borings within the vicinity of the shoreline. Soil borings B-101, B-101A, and B-102 were performed along the western portion of the shoreline, extending to depths ranging from 37-1/2 to 100 feet. Soil borings B-103 and B-104 were performed along the eastern portion of the shoreline (failure area), extending to depths ranging from 96 to 105 feet.

2. We performed laboratory testing on representative samples obtained from the soil borings. Laboratory testing included visual engineering classification, as well as determination of natural moisture content, Atterberg limits, and unconfined compressive strength.

3. We performed weekly drone surveillance.

4. We prepared this engineering report. The report includes recommendations regarding subgrade preparation, corrective actions for slope stability, and related construction considerations.

FIELD OPERATIONS

G2 selected the number, depth, and location of the soil borings. The soil boring locations were determined in the filed by measuring from existing site features and landmarks using conventional taping methods. The approximate soil boring locations are presented on the Soil Boring Location Plan, Plate No .1.

The soil borings were drilled using a truck-mounted rotary drilling rig. Continuous flight 3-7/8 inch inside diameter hollow-stem augers were used to advance the borehole to a depth of 15 feet at which steel casing was installed and mud rotary operations were utilized to advance the borehole to the explored depth. Soil samples were obtained at intervals of 2-1/2 feet within the upper 10 feet and at intervals of 5 feet thereafter. The samples were obtained by the Standard Penetration Test method (ASTM D 1586), which involves driving a 2-inch diameter split-spoon sampler into the soil with a 140-pound weight falling 30 inches. The sampler is generally driven three successive 6-inch increments with the number of blows for each increment recorded. The number of blows required to advance the sampler the last 12 inches is termed the Standard Penetration Resistance (N). The blow counts for each 6-inch increment and the resulting N-value are presented on the soil boring log.

In addition, three (3) high-quality Shelby tube samples were obtained. The thin-walled tube is 3-inches in diameter and 30 inches in overall length. The samples were obtained in general accordance with the Standard Practice for Thin-Walled Tube Geotechnical Sampling of Soils, as described in ASTM D 1587.

The in-situ undrained shear strength of the cohesive soils was determined at six (6) depths within the soil borings in general accordance with the Standard Test Method for Filed Vane Shear Test in Cohesive Soil, as described in ASTM D 2573. The results of the vane shear tests are presented on the individual Soil Borings Logs, Figure Nos. 1 through 5, at the applicable depths.

Inclinometers were installed within B-103 and B-104, with tip of casing bearing at depths of 96 feet and 105 feet, respectively. The inclinometers were installed by DLZ American Drilling personnel with 40 hour HAZWOPER training. Once the casing was installed, the contractor drove a 2 foot standpipe around the casing, in order to protect it from construction traffic. The inclinometers will measure lateral deflection, which will be comparted to measurements obtained during baseline operations. The baselining and subsequent instrument recording operations are ongoing, and this information will be forwarded under separate reports.

The soil samples were placed in sealed containers and brought to our laboratory for testing and classification. During field operations, the G2 maintained logs of the subsurface conditions, including changes in stratigraphy and observed groundwater levels. The final boring logs are based on the field boring logs supplemented by laboratory test results. The boreholes were backfilled with grout upon completion of drilling operations.

G2 performed weekly drone surveillance, which was utilized to monitor surface movements by gathering topographic information. The G2 representative is a commercial licensed UAV pilot and performed in compliance with FAA regulations. Prior to surveillance operations, G2 prepared a flight plan in order to obtain proper site coverage and utilized ground control points based on smart GPS units. The latest Drone survey Report issued to date is attached an Appendix E of this report.

LABORATORY TESTING

Representative soil samples were subjected to laboratory testing to determine soil parameters pertinent to slope stability design and site preparation. An experienced geotechnical engineer classified the samples in general conformance with the Unified Soil Classification System. Laboratory testing consisted of the following:

- “Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass” (ASTM D2216);

- "Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils" (ASTM D4318); and
- "Standard Test Method for Unconfined Compressive Strength of Cohesive Soil" (ASTM D2166)

The unconfined compressive strengths were determined by ASTM Test Method D 2166, using a spring-loaded hand penetrometer, using a Torvane shear device, and ASTM Test Method D 2573 (Vane Shear in the field). Per ASTM Test Method D 2166, the unconfined compressive strength of cohesive soils is determined by axially loading a small cylindrical soil sample under a slow rate of strain. The unconfined compressive strength is defined as the maximum stress applied to the soil sample before shear failure. If shear failure does not occur prior to a total strain of fifteen percent, the unconfined compressive strength is defined as the stress at a strain of fifteen percent. The hand penetrometer estimates the unconfined compressive strength to a maximum of 4-1/2 tons per square foot (tsf) by measuring the resistance of the soil sample to the penetration of a calibrated spring-loaded cylinder. The hand-held Torvane estimates the shear strength to a maximum of 1 tsf by measuring the resistance of the soil sample to the applied torque of a vane seated in the soil sample.

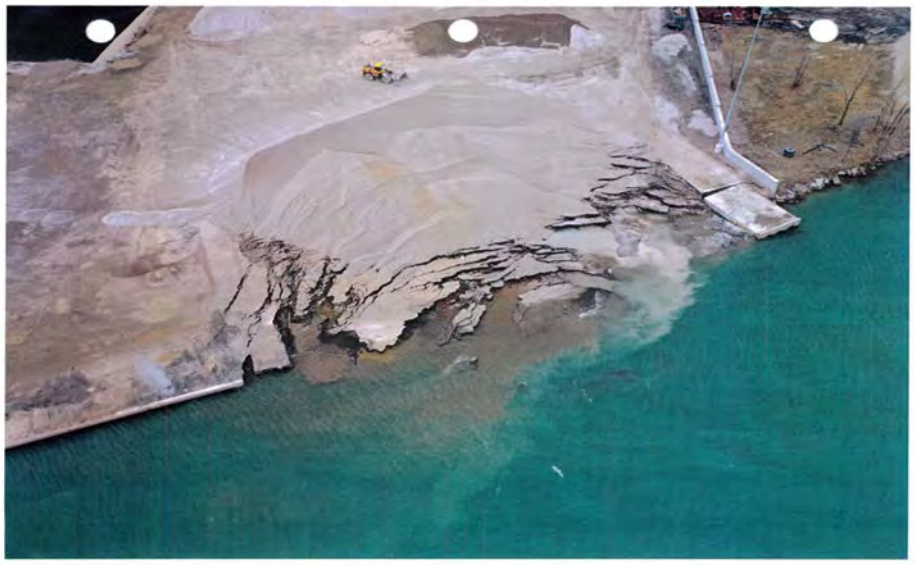
The results of the moisture content, dry density, and unconfined compressive strength tests are indicated on the Soil Boring Logs, Figure Nos. 1 through 5, at the depths the samples were obtained. The results of the Atterberg limits and unconfined compressive strengths determined in accordance with ASTM D2166 are presented in Appendix A as Figure No. 7 and Figure Nos. 8 through 11, respectively. We will hold the soil samples for 60 days from the date of this report, after which time they will be discarded. If you would like the samples, please let us know.

SITE DESCRIPTION

The Revere Dock, LLC site is located at 5851 W. Jefferson Avenue in Detroit, Michigan. In general, the site is covered with bituminous pavements and is used as a yard to stockpile aggregates. The northern portion of the site consists of a guard booth building, as well as three equipment storage buildings. The surrounding properties are generally commercial in nature.

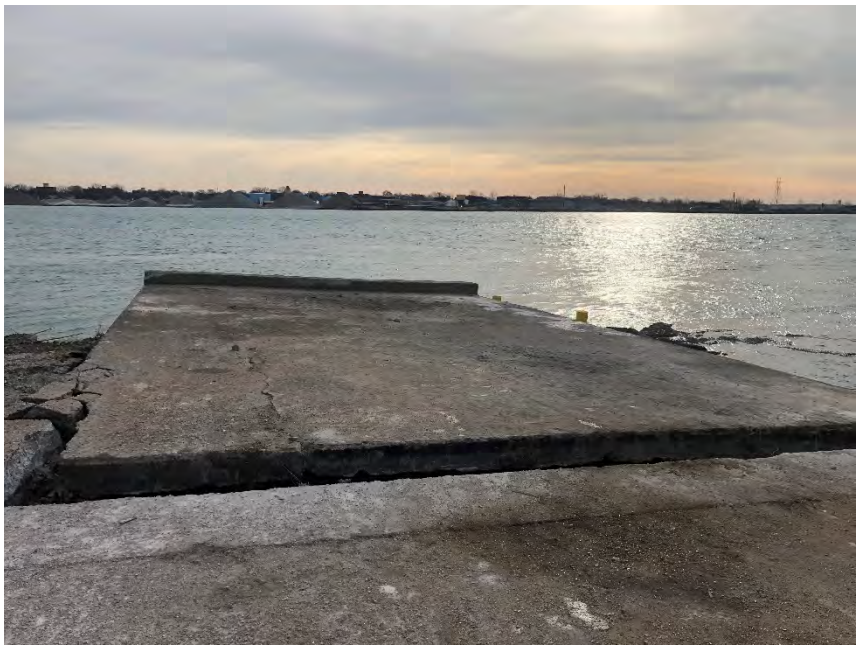
The southern portion of the site along the shoreline consists of a timber pile supported concrete cap and slab structure previously described. An existing GLWA outfall structure runs along the eastern property line and outlets into the Detroit River.

As was reported to us in December 2019, large scale soil movements were observed along the subject property shoreline, especially along the eastern portion of the site. Based on information provided to us, we understand that aggregate stockpiling operations were ongoing at the time and that materials had been placed in the near vicinity of the shoreline. The following aerial photograph was taken in November 2019 and shows the shoreline condition after slope failure but before the stockpile of aggregate was removed.



Project Shoreline November 2019

For reference, the shoreline is considered to run east to west and the shoreline is the southern boundary of the site. The western portion of the shoreline system remained intact; however, the eastern portion of the shoreline had collapsed into the Detroit River. The GLWA outfall structure has apparently moved and a large-scale crack is visible in the concrete portion of the structure. The photos below show the condition of the outfall structure as of the time of our investigations:



GLWA Sewer Outfall Structure

As previously mentioned and shown the above photograph, aggregates were stockpiled near the shoreline, and during the slope failure, some of the aggregates sloughed below the water surface. In

order to retrieve these aggregates, we understand that excavation operations were conducted resulting in a ponded area located adjacent to the GLWA outfall structure. In order to prevent the migration of contaminated soils into the Detroit River, a, aggregate berm was constructed between the ponding area and river. In addition, turbidity blankets were placed along the perimeter of the ponding area. The photograph that follows shows the ponded are before the berm construction and other turbidity confinement operations.

Ponding Area Before Berm Construction

SOIL CONDITIONS

Granular fill soils consisting of sand, gravelly sand, gravel, and sandy gravel are present at the ground surface within the soil boring locations and extends approximately 12 to 20 feet below the ground surface. Native silty clay soils underlie the fill soils within the boring locations and extend to depths ranging from 91 to 98 feet. Hardpan soils consisting of sand and clay underlie the native silty clay soils within the boring locations and extends to the explored depth ranging from 96 to 105 feet.

The granular fill soils are very loose to compact in relative density, with Standard Penetration Test (SPT) N-Values ranging from 2 to 38 blows per foot (bpf). The upper native silty clay soils within B-101 and B-102 are medium to stiff in consistency, with natural moisture contents ranging from 27 to 29 percent, dry densities ranging from 111 to 116 pounds per cubic foot (pcf), and unconfined compressive strengths ranging from 1,770 to 4,980 pounds per square foot (psf). The middle native silty clay soils are very soft to medium in consistency, with natural moisture contents ranging from 16 to 59 percent, dry densities ranging from 96 to 135 pcf, and unconfined compressive strengths ranging from 280 to 1,600 psf. The deeper native silty clay soils within B-101 and B-104 are stiff in consistency, with natural moisture contents ranging from 8 to 21 percent, and an unconfined compressive strength of 3,000 psf. The hardpan soils are hard to very hard in consistency, with natural moisture contents ranging from 8 to 11 percent, with a dry density of 132 pcf, and an unconfined compressive strengths in excess of 9,000 psf.

The Soil Boring Location Plan, Plate No. 1, and Soil Boring Logs, Figure Nos. 1 through 5, are presented in Appendix A of this report.

General

The stratification depths shown on the soil boring logs represent the soil conditions at the boring locations. Variations may occur away and between the soil boring locations. Additionally, the stratigraphic lines represent the approximate boundaries between soil types. The transition may be more gradual than indicated. We have prepared the boring logs on the basis of the field logs of the soil conditions encountered supplemented by laboratory classification and testing.

The soil profiles described above are generalized descriptions of the conditions encountered at the boring location. General Notes Terminology defining the nomenclature used on the soil boring logs and elsewhere in this report are presented on Figure No. 12.

GROUNDWATER CONDITIONS

Current Investigation

Groundwater measurements were taken during and upon completion of drilling operations. During drilling operations, groundwater was encountered at depths ranging from 2-1/2 to 4 feet below the ground surface (Elevation 574.5 to 575 feet). Due to mud rotary drilling operations, groundwater measurements could not be measured upon completion of drilling operations; however, water levels should be comparable to the water level elevation of the Detroit River.

General

Fluctuations in perched and long term groundwater levels should be anticipated due to seasonal variations and following periods of prolonged precipitation. It should also be noted that groundwater observations made during drilling operations in predominantly cohesive soils are not necessarily indicative of the static groundwater level. This is due to the low permeability of such soils and the tendency of drilling operations to seal off the natural paths of groundwater flow.

DEVELOPMENT OF DESIGN PROFILE

The purpose of this investigation is to evaluation the stability of the existing and proposed shoreline along with recommendations for a new reconstructed seawall. As such, a geotechnical design profile was developed based on all the information obtained during this phase and previous phases of the project site. In order to create a soil profile for the design process, five plots were developed, and are tabulated below:

1. Fence Plot – Indicates changes in stratigraphy between the soil boring locations. This plot is presented in Appendix A as Figure No. 6.

2. Moisture Content Plots – Presented in Appendix B as Figure Nos. 13 and 14.

3. Cohesion Plots – Indicates cohesion values obtained from vane shear, handheld Torvane, pocket penetromer, and unconfined compressive strength testing. These plots are presented in Appendix B as Figure Nos. 15 and 16.

It should be noted that geotechnical parameters used in our analyses are divided into the failure zone (disturbed area) and non-failure zone (non-disturbed area). Remolded strengths obtained during our investigation were used in the disturbed area while peak strength values were used in the non-disturbed area. In addition, design soil profiles were generated for both short- and long-term conditions. For the short term condition, cohesive soils are in an undrained state and strength is based on cohesion; however, it a long term condition, cohesive soils are in a drained state, and strength is based on internal friction angle. Based on the plotted information, the following design profiles were utilized:

Design Soil Profile (Non-Failure Zone, Short Term Condition)				
Depth	Soil	Unit Weight (pcf)	Cohesion (psf)	Friction Angle (°)
0	Fill: Sand	110	--	30
12	Stiff Silty Clay	130	1500	--
18	Soft Silty Clay	130	600	--
45	Firm Silty Clay	130	900	--
91	Hardpan	145	10,000	--

Design Soil Profile (Non-Failure Zone, Long Term Condition)				
Depth	Soil	Unit Weight (pcf)	Cohesion (psf)	Friction Angle (°)
0	Fill: Sand	110	--	30
12	Stiff Silty Clay	130	--	32
18	Soft Silty Clay	130	--	32
45	Firm Silty Clay	130	--	34
91	Hardpan	145	10,000	--

Design Soil Profile (Failure Zone, Short Term Condition)				
Depth	Soil	Unit Weight (pcf)	Cohesion (psf)	Friction Angle (°)
0	Fill: Sand	110	--	30
19	Soft Clay	130	450	--
45	Firm Clay	130	900	--
91	Hardpan	145	10,000	--

Design Soil Profile (Failure Zone, Long Term Condition)				
Depth	Soil	Unit Weight (pcf)	Cohesion (psf)	Friction Angle (°)
0	Fill: Sand	110	--	30
19	Soft Clay	130	--	32
45	Firm Clay	130	--	34
91	Hardpan	145	10,000	--

SLOPE STABILITY

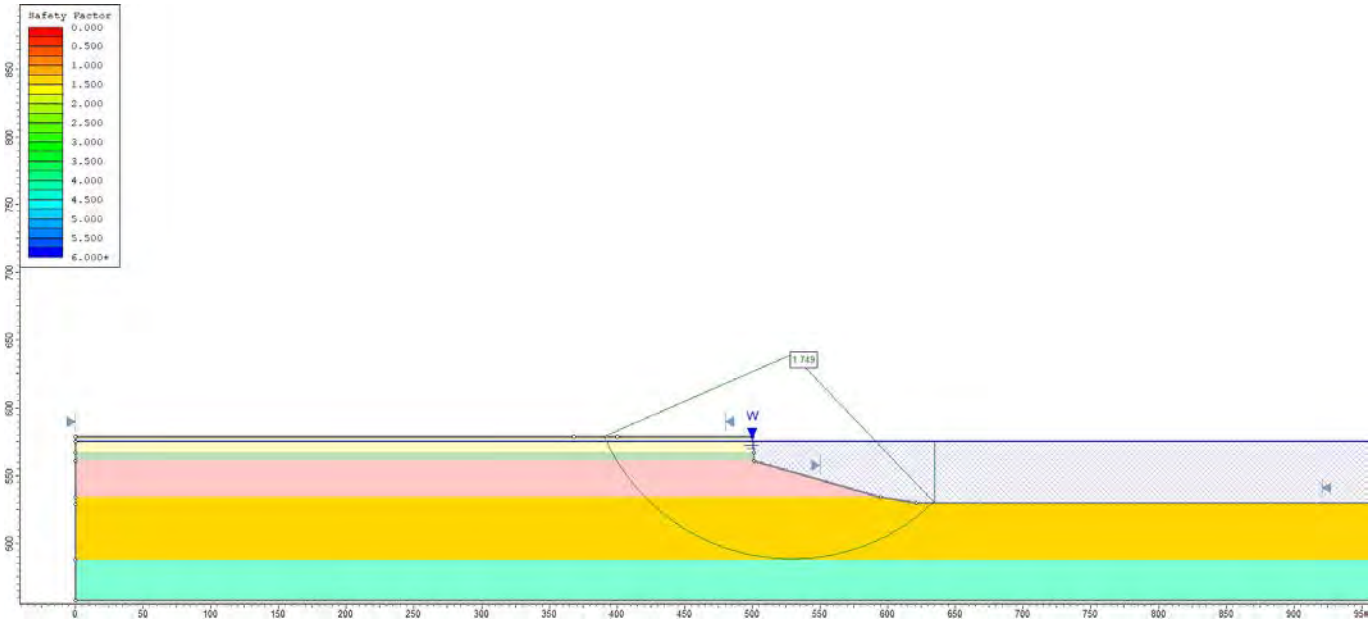
As previously stated, the slope failure occurred after stockpiling of soils within the vicinity of the shoreline. The purpose of this section of the report is to evaluate:

1. Slope stability of the before failure condition with no surcharge loading with peak soil strengths
2. Slope stability during near shoreline aggregate loading conditions with peak soil strengths
3. Slope stability after slope movement in Failure Zone with remolded strength conditions
4. Slope stability with New Seawall construction in Failure Zone with Remolded strengths
5. Slope Stability with New Seawall in undisturbed zone with peak soil strengths.

For the purpose of this study, we performed slope stability analyses using the compute program SLIDE using the Simplified Bishop Method option. Slope stability is the potential of soil slopes to withstand movement. Stability is determined by the balance of shear stress caused by loadings and the shear strength of the underlying soils.

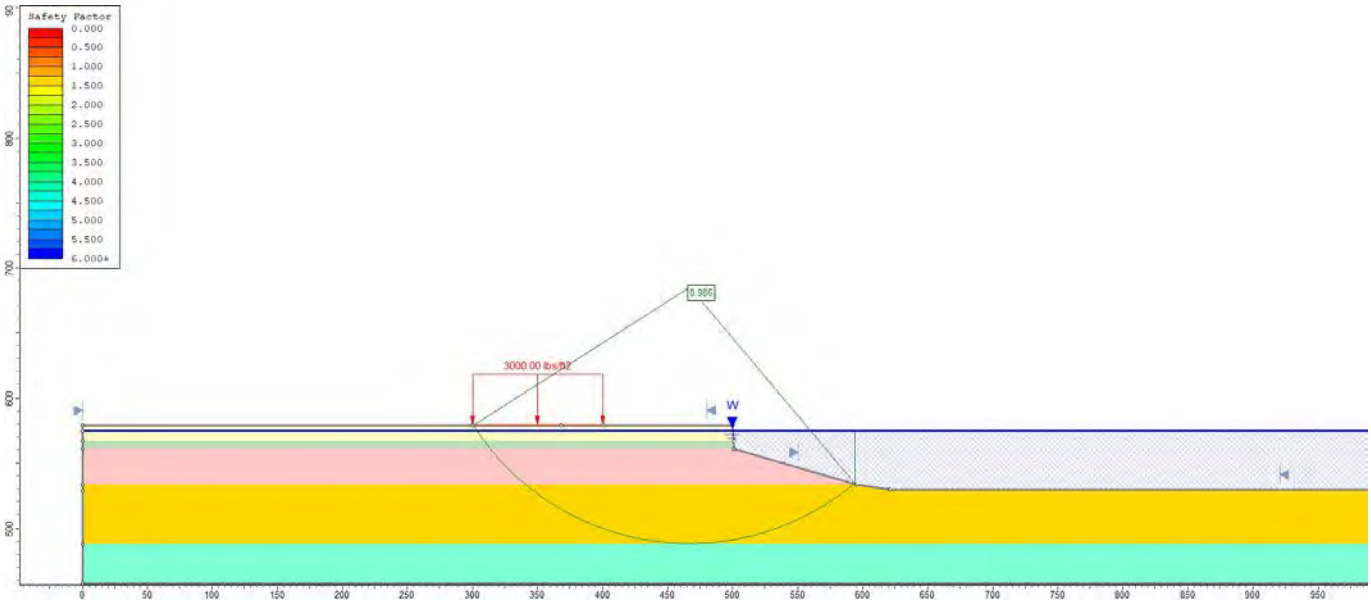
For the purpose of this report, we have modeled the aggregate stockpiling as a surcharge of 3,000 psf. We have also incorporated a proposed vessel draft of 27 feet adjacent to the new seawall. In addition, we included a 250 uniform surcharge loading. The following is a summary of our analyses.

1. Slope stability of the before failure condition with no surcharge loading with peak soil strengths



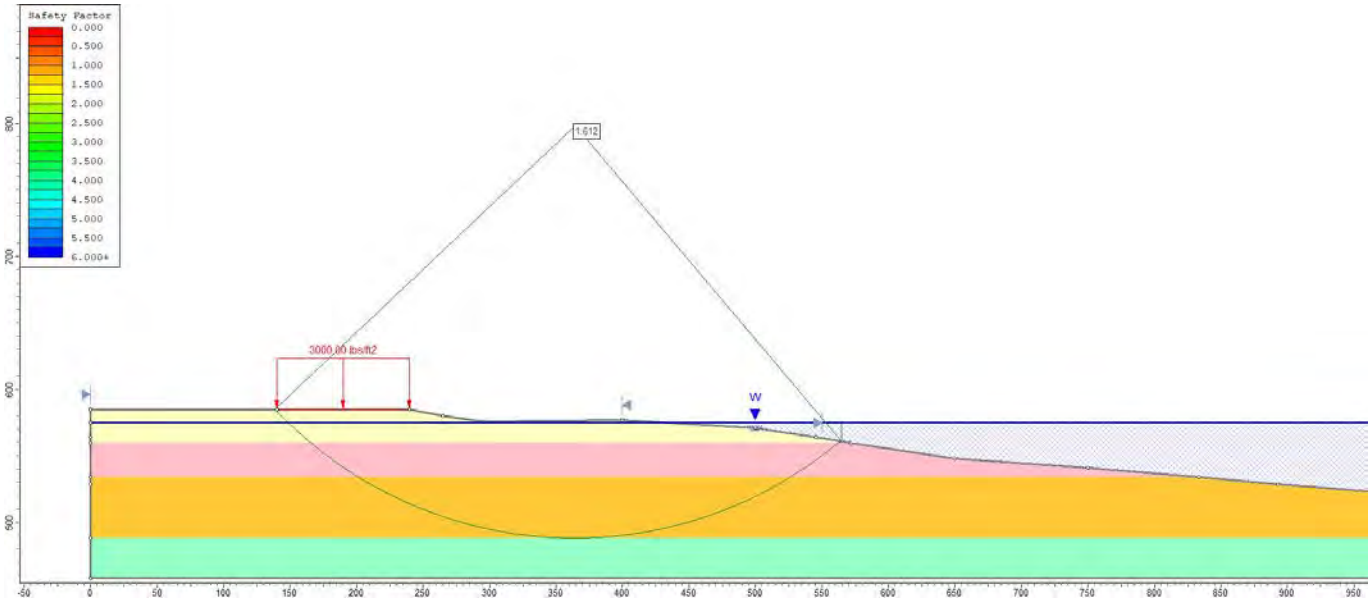
The results of our analysis show that the before failure condition (Say October 2019) with no surcharge loading has a slope stability factor of safety of about 1.7. As such, this condition is considered.

2. Slope stability during near shoreline aggregate loading conditions with peak soil strengths



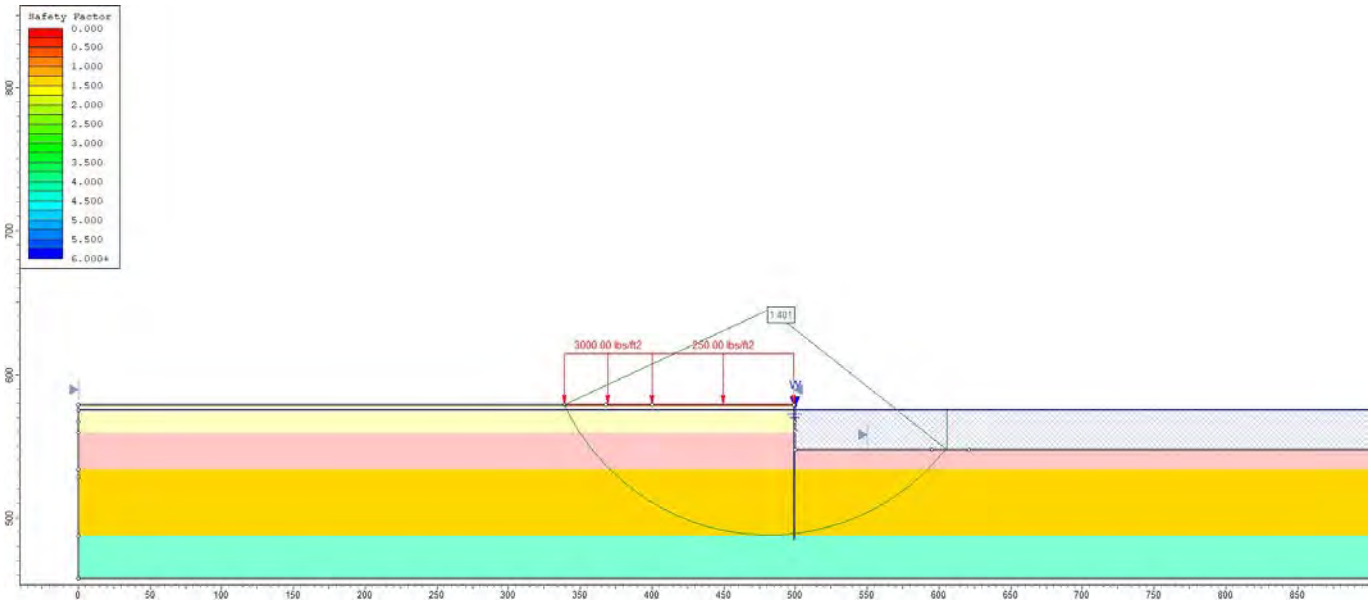
The results of this analysis indicate that surcharge loading, such as aggregate stockpiling, dramatically decreases the stability of the site shoreline. Since the factor of safety is less than one for this stock piling condition, large scale soil movements are anticipated. Our model indicates that the failure should include deep seated rotational movements and ground surfaces within 200 feet of the shoreline should slough into the Detroit River. Typically, these movements continue until enough soil has moved into the river to provide resistance to the driving forces. It should be noted that these conditions predicted by our model are an accurate portrayal of the conditions observed and reported to us. As such, this indicates that our model for slope stability is calibrated regarding the geotechnical shear strengths developed previously in this report.

3. Slope stability after slope movement in Failure Zone with remolded strength conditions



The condition shown above includes topographic information provided to us. As can be seen, the river bottom slope is much flatter and the ground surface landward from the shoreline has subsided. These conditions were predicted in our previous analysis above. The factor of safety of about 1.6 with the stockpile loading which indicates that the ground movements should stop, and the site is stable under these conditions.

4. Slope stability with New Seawall construction in Failure Zone with Remolded strengths



This condition shown above is depicting the proposed New Seawall Reconstruction. As can be seen, this model accounts for 27 feet of draft for freighters and accounts for stockpile loading limited to 100 feet from shoreline and beyond. Within the 100-foot zone between the proposed aggregate stockpile and the proposed wall face, the model provides for a surcharge loading of 250 psf which is equivalent to a 100-ton crane on appropriately sized timber matts. Our analyses indicate that these conditions result in a factor of safety against slope failure of about 1.4 and as such is considered acceptable.

5. Slope Stability with New Seawall in undisturbed zone with peak soil strengths. – Since this condition is the same as 4., above except with higher shear strength parameters, the factor of safety will be greater than 1.4.

In summary, our slope stability analyses conclude that the observed ground movements are a direct result of surcharge loading. We also conclude that to provide for an aggregate handling facility on this project site to facilitate modern lake freighters, a vertical continuous wall seated about 2 feet into the underlying hardpan is required. Forcing the slope failure into the hardpan provides for the resistance needed to provide for a stable shoreline while facilitating an off-loading facility.

DRONE SURVEYS

Subsequent to reported deep seated rotational slope movements at the project site, we have conducted Unmanned Aerial Vehicle (UAV) operations of the property to observe and document visual conditions of the site. These operations capture images and these data were used to prepare topographic information. Based on review of the data we collected to date, it appears that site contours have not deviated much and the surface of the ponded area within the reported failure continues to fluctuate somewhat.

UAV operations where conducted by a G2 Federal Aviation Administration (FAA) Part 107 Licensed Remote Pilot in Command in accordance with FAA Part 107 guidelines and regulations. G2 utilized a DJI

Phantom 4 Pro to capture 385 nadir aerial images at an approximate altitude of 200 feet, on a predetermined grid flight pattern with a front overlap ratio of 82 percent and a side overlap ratio of 71 percent, corresponding to a ground sampling distance of 0.65 inches per pixel. The grid pattern was generated using Pix4Dcapture. The same grid pattern was used for all flights.
For the site visit on December 13, 2019, G2 established Ground Control Points (GCPs) using a set of 8 survey grade GPS targets (Aeropoints, manufactured by Propeller). At this time, G2 understood the scope of work would not include subsequent site visits. Upon return to the site on January 17, 2020, G2 established 10 semi-permanent GCPs, and on January 21, 2020 G2 used a set of 10 Propeller Aeropoints to obtain accurate geolocation information for the new semi-permanent GCPs. Aerial imagery was processed using a desktop version of Pix4D Mapper. For each flight, certain GCP's were selected as Check Points to verify accuracy. NAVD88 was used for the model's vertical coordinate system. NAD 1983 State Plane Michigan South FIPS 2113 was used for the model's horizontal coordinate system. In addition, the following information was determined regarding the water surface elevation at the time of our UAV operations.

The most recent Drone Report we published is attached to the report as Appendix E

STEEL SHEET PILE SEAWALL RECONSTRUCTION

As previously mentioned, a portion of the existing shoreline is in a failed state and requires reconstruction. Furthermore, as previously mentioned, four soil profiles were utilized in the design of the proposed seawall: peak strength conditions (short and long term) and remolded strength conditions (short and long term). The peak strength and remolded strength conditions apply to non-failure and failure zones, respectively.

The results of the four steel sheet pile sections analyzed are presented in Appendix F – Seawall Reconstruction. The wall system proposed consists of a sheet pile hybrid consisting of Z-shaped steel sheet pile in combination of 54-inch diameter pipe pile. This system is to be driven into hardpan to provide the required vertical face with 27-feet of draft to facilitate lake freights. Each 54-inch diameter pipe requires a 2-1/4 inch diameter steel tie-rod which is attached to concrete dead-men pile caps. The lateral resistance required for the steel pile wall is provided by HP 14 x 73 driven battered piles. These piles are embedded in the concrete dead-men. Tiebacks are spaced a little less than 10-foot on center. Appendix F provides a summary discussed along with construction sequence and general notes.

GLWA OUTFALL STRUCTURE

Appendix G provides the as-built information regarding the GLWA outfall structure. These plans coupled with coordination with GLWA will be required to complete plans and specifications for the Seawall Reconstruction.

GENERAL COMMENTS

We have formulated the evaluations and recommendations presented in this report relative to site preparation and foundations on the basis of data provided to us relating to the project location, type of structure, and surface grade for the proposed site. Any significant change in this data should be brought to our attention for review and evaluation with respect to prevailing subsurface conditions. Furthermore, if changes occur in the design, location, or concept of the project, conclusions and recommendations contained in this report are not valid unless G2 Consulting Group, LLC reviews the changes. G2 Consulting Group, LLC will then confirm the recommendations presented herein or make changes in writing.

The scope of the present investigation was limited to evaluation of subsurface conditions for the support of proposed shoreline development. No chemical, environmental, or hydrogeological testing or analyses were included in the scope of this investigation.

We base the analyses and recommendations submitted in this report upon the data from the soil boring performed at the approximate location shown on the Soil Boring Location Plan, Plate No. 1. This report does not reflect variations that may occur between the actual boring location and the actual structure locations. The nature and extent of any such variations may not become clear until the time of construction. If significant variations then become evident, it may be necessary for us to re-evaluate our report recommendations.

We recommend G2 Consulting Group, LLC observe all geotechnical related work, including foundation construction, subgrade preparation, and engineered fill placement. G2 Consulting Group, LLC will perform the appropriate testing to confirm the geotechnical conditions given in the report are found during construction.

APPENDIX A

Soil Boring Location Plan	Plate No. 1
Soil Boring Logs	Figure Nos. 1 through 5
Soil Boring Fence Plot	Figure No. 6
Atterberg Limit Determination	Figure No. 7
Unconfined Compressive Strength Determination	Figure No. 8 through 11
General Notes Terminology	Figure No. 12

APPENDIX B

Moisture vs. Elevation Plots	Figure Nos. 13 and 14
Cohesion vs. Elevation Plots	Figure Nos. 15 and 16
Slope Stability Evaluations	Figure Nos. 17 through 22
Steel Sheet Pile Replacement Wall Design	Figure Nos. 23 through 26

APPENDIX C

Previous Investigation (Phase 1)

APPENDIX D

Previous Investigation (Phase 2)

APPENDIX E

Drone Survey Report

APPENDIX F

Seawall Reconstruction Plan

APPENDIX G

GLWA Outfall As-Builts

Appendix A

Current Investigation

Legend

Soil borings drilled by DLZ drilling from February 14, 2020 through February 21, 2020

Notes

1. Soil borings B-101 and B-102 drilled to a depth of 100 feet.
2. Soil boring B-101A drilled to a depth of 35 feet.
3. Soil boring B-103 drilled to a depth of 96 feet.
4. Soil boring B-104 drilled to a depth of 105 feet.

Soil Boring Location Plan		
Detroit Revere Dock 5851 W. Jefferson Avenue Detroit, Michigan		
2G CONSULTING GROUP	Project No. 193662	
	Drawn by: TSH	
	Date: 02-24-2020	Plate No. 1
	Scale: NTS	

Project Name: Revere Dock, LLC

Project Location: 5851 W. Jefferson Avenue
Detroit, Michigan

G2 Project No. 193662

Latitude: 42.298993° Longitude: -83.092516°

Soil Boring No. B-101

G2 CONSULTING GROUP

SUBSURFACE PROFILE / SOIL SAMPLE DATA

GROUND SURFACE ELEVATION: 579.0 ft

ELEV. (ft)	PRO-FILE		DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Fill: Medium Compact Black Gravelly Sand, occasional clay clods and cobbles		S-01	17 15 5	20			
		3.0							
574.0		Loose Black Sandy Gravel with trace wood debris	5	S-02	1 4 5	9			
				S-03	3 2 5	7			
		8.0							
569.0		Fill: Black Gravelly Sand with trace clay (Poor Recovery)	10	S-04	8 36/5"	---			
		12.0							
564.0		Medium Mottled Brown and Gray Silty Clay with trace sand and gravel	15	S-05	2 4 5	9	28.6	116	1770
		18.0							
559.0		Soft Gray Silty Clay with trace sand and gravel	20	S-06	1 1 2	3	31.7	103	820
		22.0							
554.0		Very Soft to Soft Gray Silty Clay with trace sand and gravel	25	S-07	WOH/18"	---	24.6		800**

Total Depth: 100 ft
Drilling Date: February 14, 2020
Inspector: T. Hesse
Contractor: DLZ Drilling
Driller: V. Dearing

Drilling Method:
3-7/8 inch inside diameter hollow stem auger within upper 15 feet; mud rotary thereafter

Water Level Observation:
4 feet during drilling operations; due to mud rotary operations, groundwater could not be measured upon completion of drilling operations

Notes:
* Calibrated Hand Penetrometer
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with grout

Figure No. 1a

SOIL / PAVEMENT BORING 193662.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 3/9/20

Project Name: Revere Dock, LLC

Project Location: 5851 W. Jefferson Avenue
Detroit, Michigan

G2 Project No. 193662

Latitude: 42.298993° Longitude: -83.092516°

Soil Boring No. B-101

CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 579.0 ft	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
549.0			30	S-08	WOH/18"	---	41.3		800**
544.0		Very Soft to Soft Gray Silty Clay with trace sand and gravel *(continued)*	35						
				S-09	WOH/18"	---	58.4		800**
		39.0							
539.0			40	S-10	WOH/18"	---	22.7		700**
534.0		Very Soft to Soft Gray Silty Clay with trace sand and gravel	45	S-11	WOH/18"	---	23.2		700**
529.0			50	S-12	WOH/18"	---	20.7		900**

Total Depth: 100 ft
Drilling Date: February 14, 2020
Inspector: T. Hesse
Contractor: DLZ Drilling
Driller: V. Dearing

Drilling Method:
3-7/8 inch inside diameter hollow stem auger within upper 15 feet; mud rotary thereafter

Water Level Observation:
4 feet during drilling operations; due to mud rotary operations, groundwater could not be measured upon completion of drilling operations

Notes:
* Calibrated Hand Penetrometer
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with grout

Figure No. 1b

SOIL / PAVEMENT BORING 193662.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 3/9/20

Project Name: Revere Dock, LLC

Project Location: 5851 W. Jefferson Avenue
Detroit, Michigan

G2 Project No. 193662

Latitude: 42.298993° Longitude: -83.092516°

Soil Boring No. B-101

G2 CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 579.0 ft	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Very Soft to Soft Gray Silty Clay with trace sand and gravel *(continued)*							
		52.0							
524.0			55	S-13	WOH/18"	---	23.5		1200**
519.0			60	S-14	WOH/18"	---	23.7		1400**
		Soft to Medium Gray Silty Clay with trace sand and gravel							
514.0			65	S-15	WOH/18"	---	24.3		1100**
				ST-16A			23.4	129	1410
				ST-16B			22.1	130	1590
509.0			70	S-17	WOH 2 3	5	24.1		1600**
504.0			75						

Total Depth: 100 ft
Drilling Date: February 14, 2020
Inspector: T. Hesse
Contractor: DLZ Drilling
Driller: V. Dearing

Drilling Method:
3-7/8 inch inside diameter hollow stem auger within upper 15 feet; mud rotary thereafter

Water Level Observation:
4 feet during drilling operations; due to mud rotary operations, groundwater could not be measured upon completion of drilling operations

Notes:
* Calibrated Hand Penetrometer
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with grout

Figure No. 1c

SOIL / PAVEMENT BORING 193662.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 3/9/20

Project Name: Revere Dock, LLC

Project Location: 5851 W. Jefferson Avenue
Detroit, Michigan

G2 Project No. 193662

Latitude: 42.298993° Longitude: -83.092516°

Soil Boring No. B-101

G2 CONSULTING GROUP

SUBSURFACE PROFILE / SOIL SAMPLE DATA

GROUND SURFACE ELEVATION: 579.0 ft

ELEV. (ft)	PRO-FILE		DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
				S-18	2 2 3	5	24.2	100	620
499.0		Vane Shear Test Shear Strength = 1250 psf Remolded Shear Strength = 1,110 psf Soft to Medium Gray Silty Clay with trace sand and gravel *(continued)*	80						
				S-19	WOH 1 4	5	26.6	135	570
494.0			85	S-20	1 1 1	2	22.5		700**
		88.0							
489.0		Stiff Gray Silty Clay with trace sand and gravel, occasional cobbles	90	S-21	3 2 5	7	8.5		3000**
		92.0							
484.0			95	S-22	43 50/2"	---	8.7		9000*
		Hard to Very Hard Gray Sand and Clay with trace silt and gravel (Hardpan)							
479.0		100.0	100	S-23	48 49 60/4"	---	11.1	132	6980

Total Depth: 100 ft End of Boring @ 100 ft
Drilling Date: February 14, 2020
Inspector: T. Hesse
Contractor: DLZ Drilling
Driller: V. Dearing

Drilling Method:
3-7/8 inch inside diameter hollow stem auger within upper 15 feet; mud rotary thereafter

Water Level Observation:
4 feet during drilling operations; due to mud rotary operations, groundwater could not be measured upon completion of drilling operations

Notes:
* Calibrated Hand Penetrometer
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with grout

Figure No. 1d

SOIL / PAVEMENT BORING 193662.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 3/9/20

Project Name: Revere Dock, LLC

Project Location: 5851 W. Jefferson Avenue
Detroit, Michigan

G2 Project No. 193662

Latitude: 42.299041° Longitude: -83.092463°

Soil Boring No. B-101A

CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 579.0 ft	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
574.0			5						
569.0			10						
		(Profile Drill)							
564.0			15						
559.0			20						
554.0			25						

Total Depth: 37.5 ft
Drilling Date: February 17, 2020
Inspector: T. Hesse
Contractor: DLZ Drilling
Driller: V. Dearing

Water Level Observation:
4 feet during drilling operations; due to mud rotary operations, groundwater could not be measured upon completion of drilling operations

Excavation Backfilling Procedure:
Borehole backfilled with grout

Drilling Method:
3-7/8 inch inside diameter hollow stem auger within upper 15 feet; mud rotary thereafter

Figure No. 2a

SOIL / PAVEMENT BORING 193662.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 3/9/20

Project Name: Revere Dock, LLC

Project Location: 5851 W. Jefferson Avenue
Detroit, Michigan

G2 Project No. 193662

Latitude: 42.299041° Longitude: -83.092463°

Soil Boring No. B-101A

CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 579.0 ft	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
549.0			30						
		(Profile Drill) *(continued)*							
544.0			35						
		Vane Shear Test Shear Strength = 1,120 psf Remolded Shear Strength = 510 psf							
		36.0							
		Very Soft to Soft Gray Silty Clay with trace sand and gravel		S-01	WOH/18"	---	50.6		790
		37.5							
		End of Boring @ 37.5 ft							
539.0			40						
534.0			45						
529.0			50						

Total Depth: 37.5 ft
Drilling Date: February 17, 2020
Inspector: T. Hesse
Contractor: DLZ Drilling
Driller: V. Dearing

Drilling Method:
3-7/8 inch inside diameter hollow stem auger within upper 15 feet; mud rotary thereafter

Water Level Observation:
4 feet during drilling operations; due to mud rotary operations, groundwater could not be measured upon completion of drilling operations

Excavation Backfilling Procedure:
Borehole backfilled with grout

Figure No. 2b

SOIL / PAVEMENT BORING 193662.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 3/9/20

Project Name: Revere Dock, LLC

Project Location: 5851 W. Jefferson Avenue
Detroit, Michigan

G2 Project No. 193662

Latitude: 42.299334° Longitude: -83.092230°

Soil Boring No. B-102

G2 CONSULTING GROUP

SUBSURFACE PROFILE / SOIL SAMPLE DATA

GROUND SURFACE ELEVATION: 579.0 ft

ELEV. (ft)	PRO-FILE	Description	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Fill: Compact Brown and Black Gravelly Sand with trace brick and wood debris (3.0)		S-01	15 16 22	38			
574.0		Fill: Loose Black Gravelly Sand with trace wood debris (6.0)	5	S-02	6 5 4	9			
		Fill: Loose Black Gravel with trace sand (8.0)		S-03	7 6 4	10			
569.0		Fill: Very Loose Brown Gravelly Sand (12.0)	10	S-04	1 1 2	3			
564.0		Very Stiff Mottled Brown and Gray Silty Clay with trace sand and gravel (18.0)	15	S-05	2 3 6	9	27.5	111	4980
559.0		Soft to Medium Gray Silty Clay wiht trace sand and gravel (22.0)	20	S-06	5 5 5	10	41.4		500**
554.0		Very Soft to Soft Gray Silty Clay with trace sand and gravel	25	S-07	WOH/18"	---	31.8	128	360

Total Depth: 100 ft
Drilling Date: February 13, 2020
Inspector: T. Hesse
Contractor: DLZ Drilling
Driller: V. Dearing

Drilling Method:
3-7/8 inch inside diameter hollow stem auger within upper 15 feet; mud rotary thereafter

Water Level Observation:
4 feet during drilling operations; due to mud rotary operations, groundwater could not be measured upon completion of drilling operations

Notes:
* Calibrated Hand Penetrometer
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with grout

Figure No. 3a

SOIL / PAVEMENT BORING 193662.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 3/9/20

Project Name: Revere Dock, LLC

Project Location: 5851 W. Jefferson Avenue
Detroit, Michigan

G2 Project No. 193662

Latitude: 42.299334° Longitude: -83.092230°

Soil Boring No. B-102

G2 CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 579.0 ft	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
549.0		Very Soft to Soft Gray Silty Clay with trace sand and gravel *(continued)* (Liquid Limit = 38, Plastic Limit = 18)	30	S-08	WOH/18"	---	42.4		800**
		32.5							
544.0			35	S-09	WOH/18"	---	23.3		700**
539.0			40	S-10	WOH/18"	---	22.3		800**
		Very Soft to Soft Gray Silty Clay with trace sand and gravel		ST-11A			22.2	131	740
534.0			45	ST-11B			22.0	132	780
				S-12	WOH/18"	---	23.1		600**
529.0			50	S-13	WOH/18"	---	25.9		700**

Total Depth: 100 ft
Drilling Date: February 13, 2020
Inspector: T. Hesse
Contractor: DLZ Drilling
Driller: V. Dearing

Drilling Method:
3-7/8 inch inside diameter hollow stem auger within upper 15 feet; mud rotary thereafter

Water Level Observation:
4 feet during drilling operations; due to mud rotary operations, groundwater could not be measured upon completion of drilling operations

Notes:
* Calibrated Hand Penetrometer
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with grout

Figure No. 3b

SOIL / PAVEMENT BORING 193662.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 3/9/20

Project Name: Revere Dock, LLC

Project Location: 5851 W. Jefferson Avenue
Detroit, Michigan

G2 Project No. 193662

Latitude: 42.299334° Longitude: -83.092230°

Soil Boring No. B-102

G2 CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 579.0 ft	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
524.0			55	S-14	WOH/18"	---	22.4		900**
519.0			60	S-15	WOH/12" 2	---	23.7		700**
514.0		Very Soft to Soft Gray Silty Clay with trace sand and gravel *(continued)*	65	S-16	WOH/12" 3	---	24.2	110	700
509.0		(Poor Recovery)	70	S-17	WOH 1 3	4	28.9		
		73.0							
504.0		Soft to Medium Gray Silty Clay with trace sand and gravel Vane Shear Test	75						

Total Depth: 100 ft
Drilling Date: February 13, 2020
Inspector: T. Hesse
Contractor: DLZ Drilling
Driller: V. Dearing

Drilling Method:
3-7/8 inch inside diameter hollow stem auger within upper 15 feet; mud rotary thereafter

Water Level Observation:
4 feet during drilling operations; due to mud rotary operations, groundwater could not be measured upon completion of drilling operations

Notes:
* Calibrated Hand Penetrometer
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with grout

Figure No. 3c

SOIL / PAVEMENT BORING 193662.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 3/9/20

Project Name: Revere Dock, LLC

Project Location: 5851 W. Jefferson Avenue
Detroit, Michigan

G2 Project No. 193662

Latitude: 42.299334° Longitude: -83.092230°

Soil Boring No. B-102

G2 CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 579.0 ft	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Shear Strength = 1,470 psf		S-18	1 2 3	5	25.0		800**
499.0			80	S-19	WOH 2 3	5	26.4		900**
494.0		Soft to Medium Gray Silty Clay with trace sand and gravel *(continued)*	85	S-20	3 4 5	9	26.4		1000**
489.0			90	S-21	WOH/12" 4	---	16.7		900**
		91.0							
484.0		Hard to Very Hard Gray Sand and Clay with trace silt and gravel (Hardpan)	95	S-22	70/5"	---	8.3		9000*
479.0		100.0	100	S-23	70/5"	---	8.2		9000*

Total Depth: 100 ft End of Boring @ 100 ft
Drilling Date: February 13, 2020
Inspector: T. Hesse
Contractor: DLZ Drilling
Driller: V. Dearing

Drilling Method:
3-7/8 inch inside diameter hollow stem auger within upper 15 feet; mud rotary thereafter

Water Level Observation:
4 feet during drilling operations; due to mud rotary operations, groundwater could not be measured upon completion of drilling operations

Notes:
* Calibrated Hand Penetrometer
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with grout

Figure No. 3d

SOIL / PAVEMENT BORING 193662.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 3/9/20

Project Name: Revere Dock, LLC

Project Location: 5851 W. Jefferson Avenue
Detroit, Michigan

G2 Project No. 193662

Latitude: 42.299943° Longitude: -83.091792°

Soil Boring No. B-103

G2 CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 577.0 ft	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Fill: Loose Gray Gravel		S-01	4 3 5	8			
		3.0							
572.0		Fill: Loose to Medium Compact Black Gravelly Sand with trace wood and glass debris	5	S-02	8 7 7	14			
				S-03	5 6 3	9			
		8.0							
567.0		Fill: Very Loose Black Sand with trace gravel and wood debris	10	S-04	2 2 1	3			
562.0			15	S-05	WOH 1 2	3			
557.0		20.0	20	S-06	WOH/12" 1	---			
552.0		Very Soft to Soft Gray Silty Clay with trace sand and gravel	25	S-07	WOH/18"	---	46.3		500**

Total Depth: 96 ft
Drilling Date: February 20, 2020
Inspector: T. Hesse
Contractor: DLZ Drilling
Driller: V. Dearing

Drilling Method:
3-7/8 inch inside diameter hollow stem auger within upper 15 feet; mud rotary thereafter

Water Level Observation:
2-1/2 feet during drilling operations; due to mud rotary operations, groundwater could not be measured upon completion of drilling operations

Notes:
Inclinometer Installed - Oriented Perpendicular to Detroit River
* Calibrated Hand Penetrometer
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with grout

Figure No. 4a

SOIL / PAVEMENT BORING 193662.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 3/9/20

Project Name: Revere Dock, LLC

Project Location: 5851 W. Jefferson Avenue
Detroit, Michigan

G2 Project No. 193662

Latitude: 42.299943° Longitude: -83.091792°

Soil Boring No. B-103

CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 577.0 ft	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
547.0			30	S-08	WOH/18"	---	31.7	134	290
542.0		Very Soft to Soft Gray Silty Clay with trace sand and gravel *(continued)*	35	S-09	WOH/18"	---	27.1		400**
		37.5							
537.0			40	S-10	WOH/12" 1	---	19.9		500**
532.0		Very Soft to Soft Gray Silty Clay with trace sand and gravel	45	S-11	WOH/18"	---	22.5		600**
527.0			50	S-12	WOH/18"	---	21.1		600**

Total Depth: 96 ft
Drilling Date: February 20, 2020
Inspector: T. Hesse
Contractor: DLZ Drilling
Driller: V. Dearing

Drilling Method:
3-7/8 inch inside diameter hollow stem auger within upper 15 feet; mud rotary thereafter

Water Level Observation:
2-1/2 feet during drilling operations; due to mud rotary operations, groundwater could not be measured upon completion of drilling operations

Notes:
Inclinometer Installed - Oriented Perpendicular to Detroit River
* Calibrated Hand Penetrometer
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with grout

Figure No. 4b

SOIL / PAVEMENT BORING 193662.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 3/9/20

Project Name: Revere Dock, LLC

Project Location: 5851 W. Jefferson Avenue
Detroit, Michigan

G2 Project No. 193662

Latitude: 42.299943° Longitude: -83.091792°

Soil Boring No. B-103

G2 CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 577.0 ft	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
522.0		Vane Shear Test Shear Strength = 1,630 psf Remolded Shear Strength = 1,160 psf	55						
517.0			60	S-13	WOH 1 3	4	23.1	112	580
512.0		Very Soft to Soft Gray Silty Clay with trace sand and gravel *(continued)*	65	S-14	WOH/18"	---	22.2		700**
507.0			70	S-15	WOH/12" 1	---	25.7	110	750
502.0			75						

Total Depth: 96 ft
Drilling Date: February 20, 2020
Inspector: T. Hesse
Contractor: DLZ Drilling
Driller: V. Dearing

Drilling Method:
3-7/8 inch inside diameter hollow stem auger within upper 15 feet; mud rotary thereafter

Water Level Observation:
2-1/2 feet during drilling operations; due to mud rotary operations, groundwater could not be measured upon completion of drilling operations

Notes:
Inclinometer Installed - Oriented Perpendicular to Detroit River
* Calibrated Hand Penetrometer
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with grout

Figure No. 4c

Project Name: Revere Dock, LLC

Project Location: 5851 W. Jefferson Avenue
Detroit, Michigan

G2 Project No. 193662

Latitude: 42.299943° Longitude: -83.091792°

Soil Boring No. B-103

G2 CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 577.0 ft	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Vane Shear Test Shear Strength = 1,490 psf Remolded Shear Strength = 980 psf		S-16	2 2 4	6	26.5	100	660
497.0			80	S-17	WOH/12" 2	---	31.7		600**
		Very Soft to Soft Gray Silty Clay with trace sand and gravel *(continued)*							
492.0			85	S-18	WOH/18"	---	31.6	111	530
		87.0							
487.0		Medium Gray Silty Clay with trace sand and gravel (Poor Recovery) (Occasional Shale Pieces)	90	S-19	6 4 6	10	22.1		1000*
		93.0							
482.0		Hard to Very Hard Gray Sand and Clay with trace silt and gravel (Hardpan) (No Recovery)	95	S-20	75/0"	---			
		96.0							
477.0		End of Boring @ 96 ft	100						

Total Depth: 96 ft
Drilling Date: February 20, 2020
Inspector: T. Hesse
Contractor: DLZ Drilling
Driller: V. Dearing

Drilling Method:
3-7/8 inch inside diameter hollow stem auger within upper 15 feet; mud rotary thereafter

Water Level Observation:
2-1/2 feet during drilling operations; due to mud rotary operations, groundwater could not be measured upon completion of drilling operations

Notes:
Inclinometer Installed - Oriented Perpendicular to Detroit River
* Calibrated Hand Penetrometer
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with grout

Figure No. 4d

SOIL / PAVEMENT BORING 193662.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 3/9/20

Project Name: Revere Dock, LLC

Project Location: 5851 W. Jefferson Avenue
Detroit, Michigan

G2 Project No. 193662

Latitude: 42.300071° Longitude: -83.091643°

Soil Boring No. B-104

G2 CONSULTING GROUP

SUBSURFACE PROFILE / SOIL SAMPLE DATA

GROUND SURFACE ELEVATION: 578.0 ft

ELEV. (ft)	PRO-FILE	Description	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Fill: Loose Brown and Black Sand with trace gravel, clay, glass debris, and wood debris		S-01	3 5 2	7			
		3.0							
573.0		Fill: Very Loose Brown and Black Gravely Sand with trace clay	5	S-02	1 1 1	2			
		6.0							
		Fill: Very Loose Brown and Black Sand with trace gravel and clay (Poor Recovery)		S-03	1 1 1	2			
		9.0							
568.0			10	S-04	WOH/18"	---			
		Fill: Very Loose Brown Sand with trace gravel							
		13.0							
563.0			15	S-05	WOH/18"	---	36.5		600**
		Very Soft to Soft Gray Silty Clay with trace sand and gravel							
558.0			20	S-06	WOH/18"	---	40.8		500**
553.0			25	S-07	WOH/18"	---	35.3		400**

Total Depth: 105 ft
Drilling Date: February 18, 2020
Inspector: T. Hesse
Contractor: DLZ Drilling
Driller: V. Dearing

Drilling Method:
3-7/8 inch inside diameter hollow stem auger within upper 15 feet; mud rotary thereafter

Water Level Observation:
3 feet during drilling operations; due to mud rotary operations, groundwater could not be measured upon completion of drilling operations

Notes:
Inclinometer Installed - Oriented Parallel to Detroit River
* Calibrated Hand Penetrometer
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with grout

Figure No. 5a

SOIL / PAVEMENT BORING 193662.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 3/9/20

Project Name: Revere Dock, LLC

Project Location: 5851 W. Jefferson Avenue
Detroit, Michigan

G2 Project No. 193662

Latitude: 42.300071° Longitude: -83.091643°

Soil Boring No. B-104

G2 CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 578.0 ft	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
548.0			30	S-08	WOH/18"	---	54.1		400**
543.0		Very Soft to Soft Gray Silty Clay with trace sand and gravel *(continued)*	35	S-09	WOH/18"	---	28.8	96	280
538.0		Vane Shear Test Shear Strength = 790 psf Remolded Shear Strength = 330 psf	40						
				S-10	WOH/18"	---	66.8		600**
		44.0							
533.0			45	S-11	WOH/18"	---	24.6		600**
528.0		Soft to Medium Gray Silty Clay with trace sand and gravel	50						

Total Depth: 105 ft
Drilling Date: February 18, 2020
Inspector: T. Hesse
Contractor: DLZ Drilling
Driller: V. Dearing

Drilling Method:
3-7/8 inch inside diameter hollow stem auger within upper 15 feet; mud rotary thereafter

Water Level Observation:
3 feet during drilling operations; due to mud rotary operations, groundwater could not be measured upon completion of drilling operations

Notes:
Inclinometer Installed - Oriented Parallel to Detroit River
* Calibrated Hand Penetrometer
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with grout

Figure No. 5b

SOIL / PAVEMENT BORING 193662.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 3/9/20

Project Name: Revere Dock, LLC

Project Location: 5851 W. Jefferson Avenue
Detroit, Michigan

G2 Project No. 193662

Latitude: 42.300071° Longitude: -83.091643°

Soil Boring No. B-104

G2 CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 578.0 ft	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
				ST-12B			23.3	129	1350
				ST-12A			21.7	130	510
				S-13	WOH/18"	---	22.3	110	270
523.0			55						
518.0		(Liquid Limit = 30, Plastic Limit = 15)	60	S-14	WOH/12" 3	---	20.8		500**
		Soft to Medium Gray Silty Clay with trace sand and gravel *(continued)*							
513.0			65	S-15	WOH 3 2	5	22.4	115	780
508.0			70	S-16	WOH 3 3	6	26.3		800**
503.0			75	S-17	WOH 3 3	6	27.1		800**

Total Depth: 105 ft
Drilling Date: February 18, 2020
Inspector: T. Hesse
Contractor: DLZ Drilling
Driller: V. Dearing

Drilling Method:
3-7/8 inch inside diameter hollow stem auger within upper 15 feet; mud rotary thereafter

Water Level Observation:
3 feet during drilling operations; due to mud rotary operations, groundwater could not be measured upon completion of drilling operations

Notes:
Inclinometer Installed - Oriented Parallel to Detroit River
* Calibrated Hand Penetrometer
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with grout

Figure No. 5c

SOIL / PAVEMENT BORING 193662.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 3/9/20

Project Name: Revere Dock, LLC

Project Location: 5851 W. Jefferson Avenue
Detroit, Michigan

G2 Project No. 193662

Latitude: 42.300071° Longitude: -83.091643°

Soil Boring No. B-104

G2 CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 578.0 ft	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
				S-18	WOH/12" 2	---	18.2		600**
498.0			80	S-19	WOH/18"	---	30.9		700**
493.0		Soft to Medium Gray Silty Clay with trace sand and gravel *(continued)*	85	S-20	2 2 3	5	28.7		800**
488.0			90	S-21	1 2 2	4	21.3		700**
		92.0							
483.0		Stiff Gray Silty Clay with trace sand and gravel	95	S-22	5 4 8	12	20.9		3000*
		98.0							
478.0		Hard to Very Hard Gray Sand and Gravel with trace silt and gravel (Hardpan)	100	S-23	75/4"	---			9000*

Total Depth: 105 ft
Drilling Date: February 18, 2020
Inspector: T. Hesse
Contractor: DLZ Drilling
Driller: V. Dearing

Drilling Method:
3-7/8 inch inside diameter hollow stem auger within upper 15 feet; mud rotary thereafter

Water Level Observation:
3 feet during drilling operations; due to mud rotary operations, groundwater could not be measured upon completion of drilling operations

Notes:
Inclinometer Installed - Oriented Parallel to Detroit River
* Calibrated Hand Penetrometer
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with grout

Figure No. 5d

SOIL / PAVEMENT BORING 193662.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 3/9/20

Project Name: Revere Dock, LLC

Project Location: 5851 W. Jefferson Avenue
Detroit, Michigan

G2 Project No. 193662

Latitude: 42.300071° Longitude: -83.091643°

Soil Boring No. B-104

G2 CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 578.0 ft	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		(Poor Recovery)							
		Hard to Very Hard Gray Sand and Gravel with trace silt and gravel (Hardpan) *(continued)*							
		(Occasional Sand Seams)							
473.0		105.0	105	S-24	53 75/2"	---			9000*
		End of Boring @ 105 ft							
468.0			110						
463.0			115						
458.0			120						
453.0			125						

Total Depth: 105 ft
Drilling Date: February 18, 2020
Inspector: T. Hesse
Contractor: DLZ Drilling
Driller: V. Dearing

Drilling Method:
3-7/8 inch inside diameter hollow stem auger within upper 15 feet; mud rotary thereafter

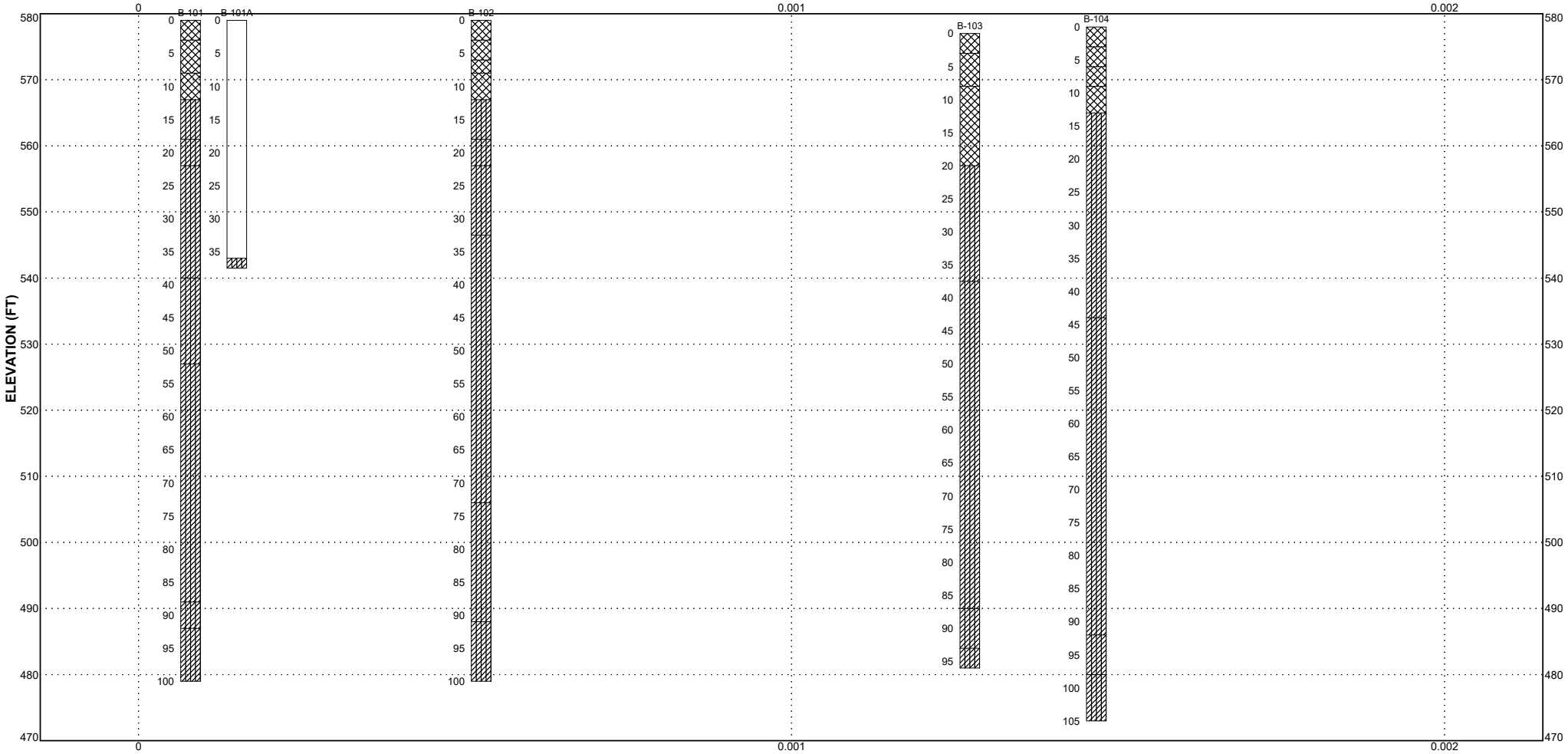
Water Level Observation:
3 feet during drilling operations; due to mud rotary operations, groundwater could not be measured upon completion of drilling operations

Notes:
Inclinometer Installed - Oriented Parallel to Detroit River
* Calibrated Hand Penetrometer
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with grout

Figure No. 5e

SOIL / PAVEMENT BORING 193662.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 3/9/20



SOIL BORING PROFILE

CONSULTING GROUP

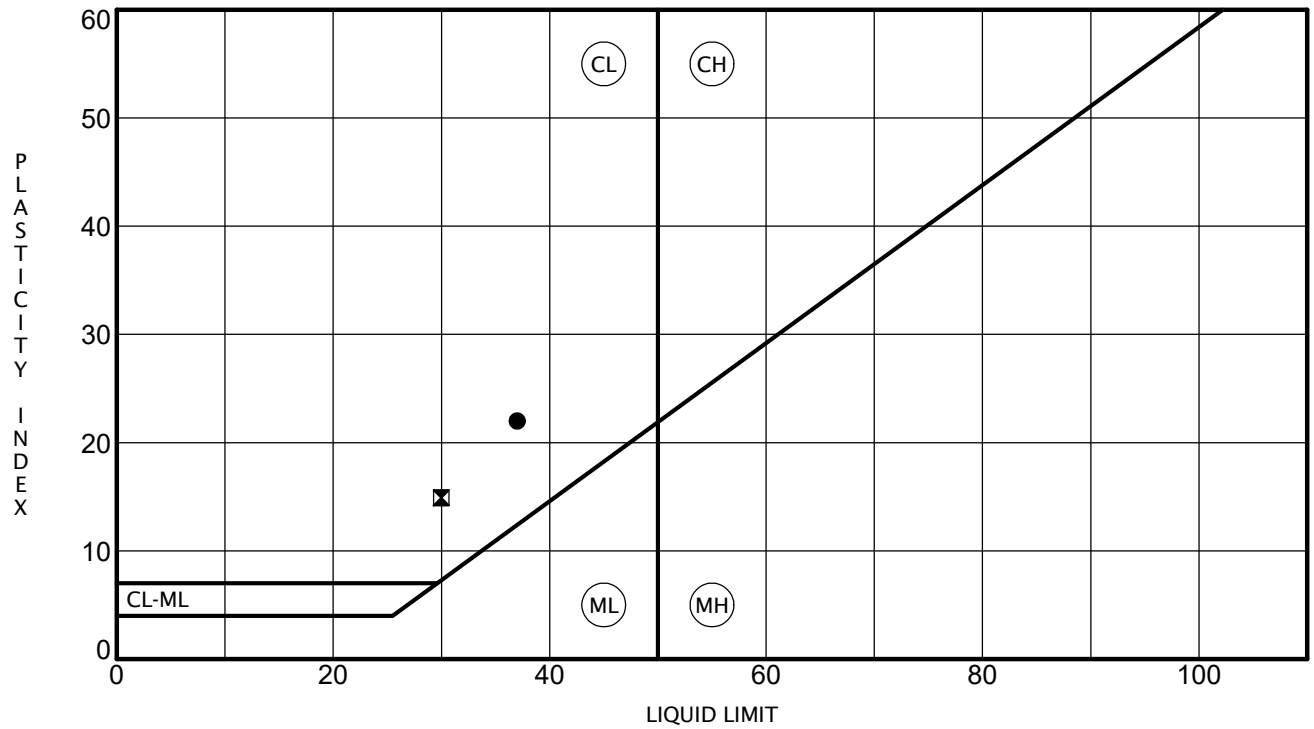
Project Name: Revere Dock, LLC

Project Location: 5851 W. Jefferson Avenue
Detroit, Michigan

G2 Project No.: 193662

Figure No. 1

SOIL BORING PROFILE_NO DATA_11X17_193662.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 3/11/20



	Specimen Identification		LL	PL	PI	Fines	M %	Classification
●	B-102	S-08	37	15	22		42	
⊠	B-104	S-14	30	15	15		21	

CONSULTING GROUP

ATTERBERG LIMITS RESULTS

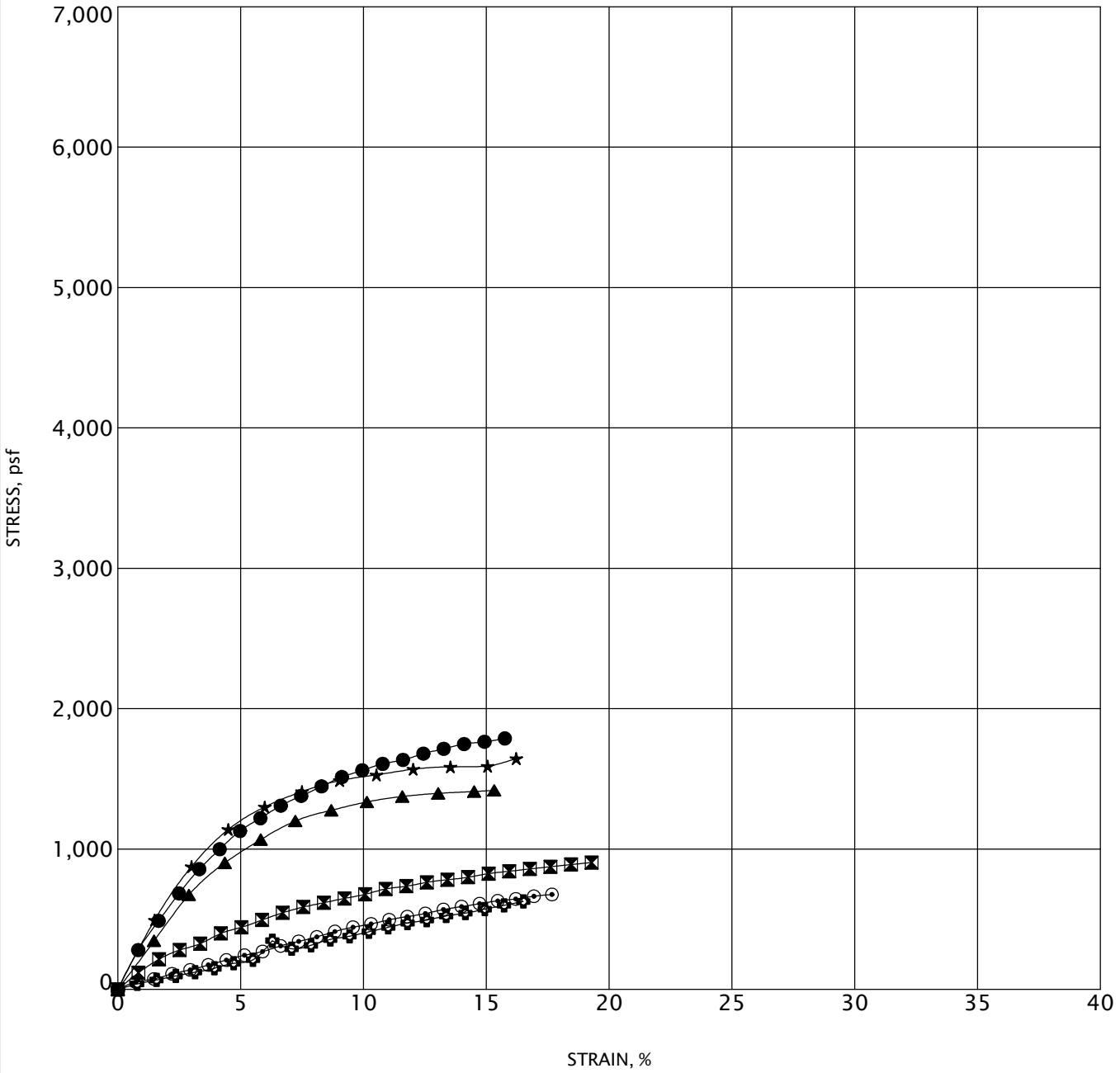
Project Name: Revere Dock, LLC

Project Location: 5851 W. Jefferson Avenue
Detroit, Michigan

G2 Project No.: 193662

Figure No. 7

US_ATTERBERG_LIMITS 193662.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 3/9/20



Specimen		Classification	MC%	γ_d	UC
●	B-101 S-05	Medium Mottled Brown and Gray Silty Clay	27	116	1770
⊠	B-101 S-06	Soft Gray Silty Clay	26	103	820
▲	B-101 ST-16A	Medium Gray Silty Clay	23	129	1410
★	B-101 ST-16B	Medium Gray Silty Clay	22	130	1590
⊙	B-101 S-18	Soft Gray Silty Clay	26	100	620
✿	B-101 S-19	Soft Gray Silty Clay	26	135	570

CONSULTING GROUP

UNCONFINED COMPRESSIVE STRENGTH TEST

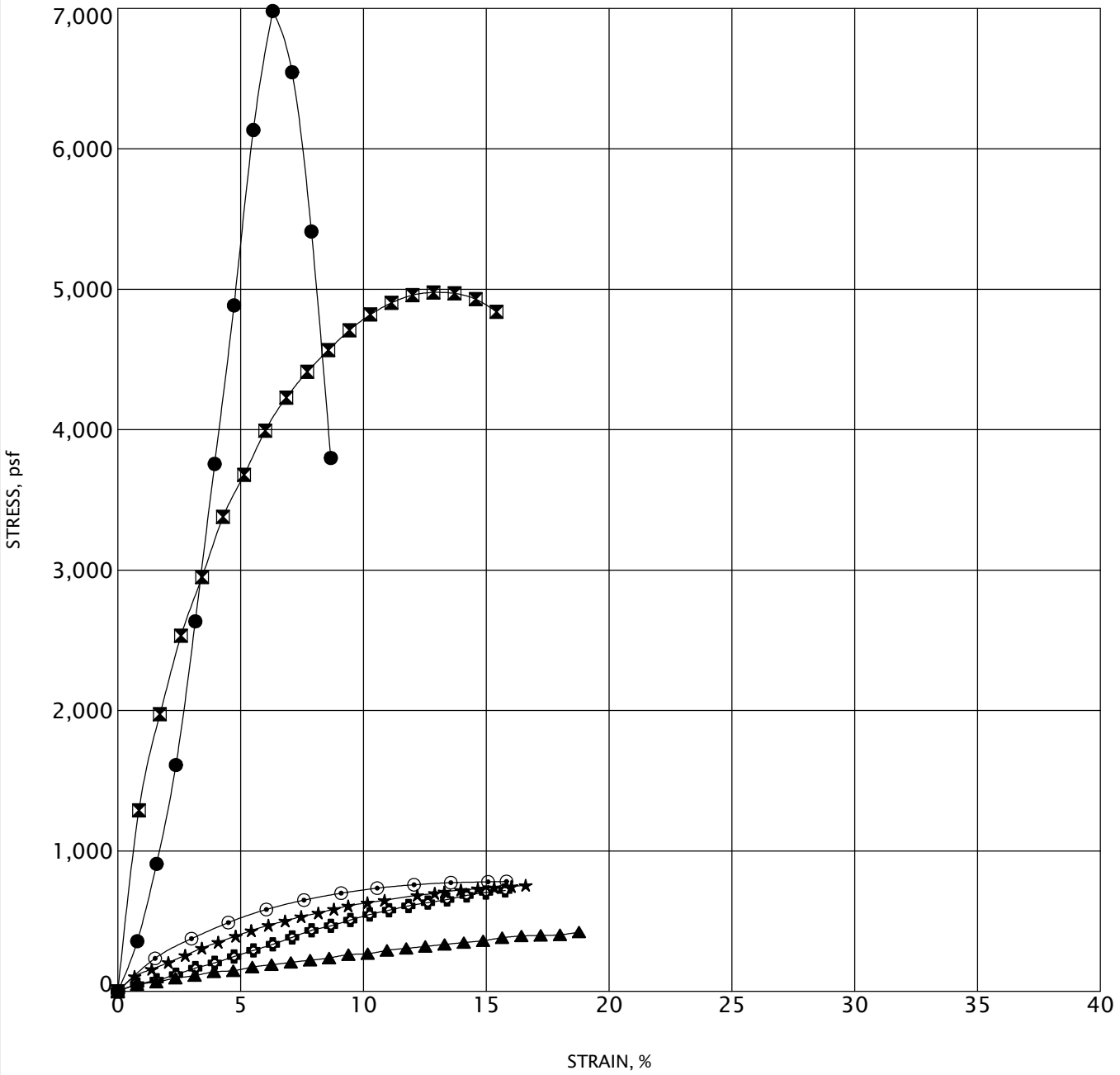
Project Name: Revere Dock, LLC

Project Location: 5851 W. Jefferson Avenue
Detroit, Michigan

G2 Project No.: 193662

Figure No. 8

US_UNCONFINED 193662.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 3/9/20



Specimen		Classification	MC%	γ_d	UC
●	B-101 S-23	Very Stiff Gray Clay and Sand (Hardpan)	10	132	6980
⊠	B-102 S-05	Very Stiff Mottled Brown and Gray Silty Clay	29	111	4980
▲	B-102 S-07	Very Soft Gray Silty Clay	34	128	360
★	B-102 ST-11A		22	131	740
⊙	B-102 ST-11B	Soft Gray Silty Clay	22	132	780
✿	B-102 S-16	Soft Gray Silty Clay	23	110	700

CONSULTING GROUP

UNCONFINED COMPRESSIVE STRENGTH TEST

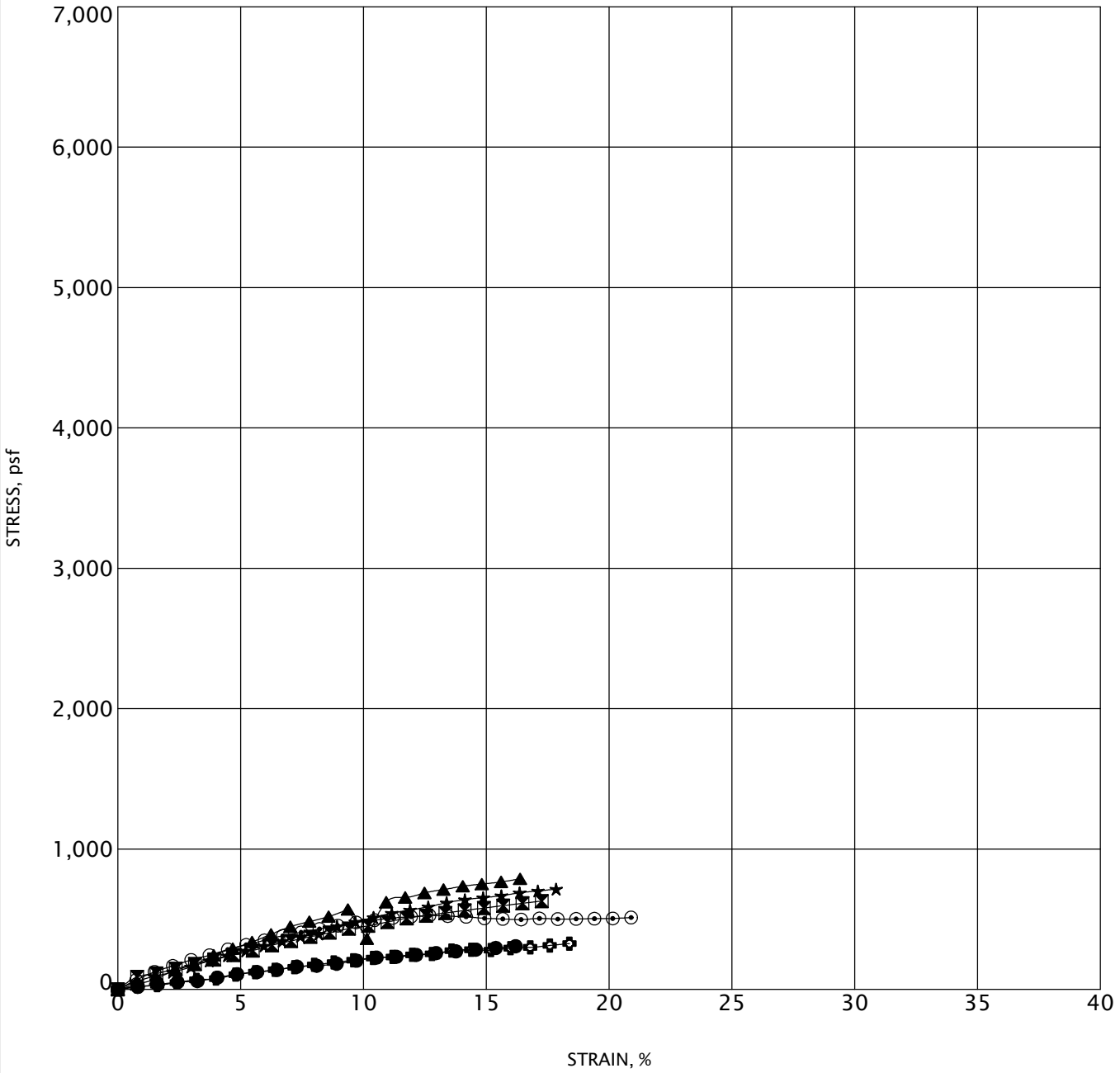
Project Name: Revere Dock, LLC

Project Location: 5851 W. Jefferson Avenue
Detroit, Michigan

G2 Project No.: 193662

Figure No. 9

US_UNCONFINED 193662.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 3/9/20



Specimen		Classification	MC%	γ_d	UC
●	B-103 S-08	Very Soft Gray Silty Clay	30	134	290
⊠	B-103 S-13	Soft Gray Silty Clay	22	112	580
▲	B-103 S-15	Soft Gray Silty Clay	25	110	750
★	B-103 S-16	Soft Gray Silty Clay	26	100	660
⊙	B-103 S-18	Soft Gray Silty Clay	36	111	530
✿	B-104 S-09	Very Soft Gray Silty Clay	25	96	280

G2 CONSULTING GROUP

UNCONFINED COMPRESSIVE STRENGTH TEST

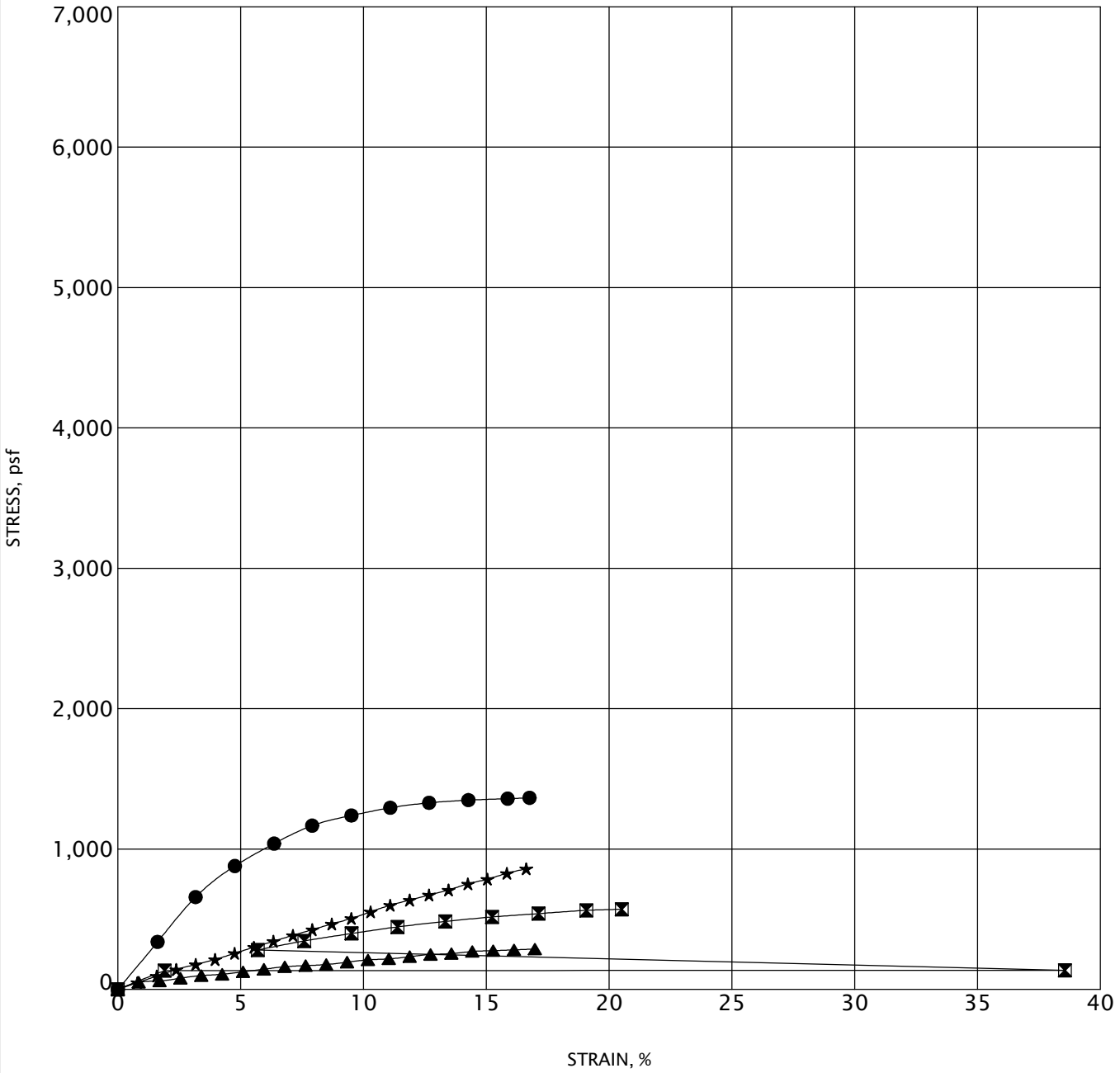
Project Name: Revere Dock, LLC

Project Location: 5851 W. Jefferson Avenue
Detroit, Michigan

G2 Project No.: 193662

Figure No. 10

US_UNCONFINED 193662.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 3/9/20



	Specimen	Classification	MC%	γ_d	UC
●	B-104 ST-12B	Medium Gray Silty Clay	23	129	1350
⊠	B-104 ST-12A	Soft Gray Silty Clay	22	130	510
▲	B-104 S-13	Very Soft Gray Clay	21	110	270
★	B-104 S-15	Soft Gray Silty Clay	22	115	780

G2 CONSULTING GROUP

UNCONFINED COMPRESSIVE STRENGTH TEST

Project Name: Revere Dock, LLC

Project Location: 5851 W. Jefferson Avenue
Detroit, Michigan

G2 Project No.: 193662

Figure No. 11

US_UNCONFINED 193662.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 3/9/20

GENERAL NOTES TERMINOLOGY

Unless otherwise noted, all terms herein refer to the Standard Definitions presented in ASTM 653.

PARTICLE SIZE

Boulders		- greater than 12 inches
Cobbles		- 3 inches to 12 inches
Gravel	- Coarse	- 3/4 inches to 3 inches
	- Fine	- No. 4 to 3/4 inches
Sand	- Coarse	- No. 10 to No. 4
	- Medium	- No. 40 to No. 10
	- Fine	- No. 200 to No. 40
Silt		- 0.005mm to 0.074mm
Clay		- Less than 0.005mm

CLASSIFICATION

The major soil constituent is the principal noun, i.e. clay, silt, sand, gravel. The second major soil constituent and other minor constituents are reported as follows:

Second Major Constituent (percent by weight)	Minor Constituent (percent by weight)
Trace - 1 to 12%	Trace - 1 to 12%
Adjective - 12 to 35%	Little - 12 to 23%
And - over 35%	Some - 23 to 33%

COHESIVE SOILS

If clay content is sufficient so that clay dominates soil properties, clay becomes the principal noun with the other major soil constituent as modifier, i.e. sandy clay. Other minor soil constituents may be included in accordance with the classification breakdown for cohesionless soils, i.e. silty clay, trace sand, little gravel.

Consistency	Unconfined Compressive Strength (psf)	Approximate Range of (N)
Very Soft	Below 500	0 - 2
Soft	500 - 1,000	3 - 4
Medium	1,000 - 2,000	5 - 8
Stiff	2,000 - 4,000	9 - 15
Very Stiff	4,000 - 8,000	16 - 30
Hard	8,000 - 16,000	31 - 50
Very Hard	Over 16,000	Over 50

Consistency of cohesive soils is based upon an evaluation of the observed resistance to deformation under load and not upon the Standard Penetration Resistance (N).

COHESIONLESS SOILS

Density Classification	Relative Density %	Approximate Range of (N)
Very Loose	0 - 15	0 - 4
Loose	16 - 35	5 - 10
Medium Compact	36 - 65	11 - 30
Compact	66 - 85	31 - 50
Very Compact	86 - 100	Over 50

Relative Density of cohesionless soils is based upon the evaluation of the Standard Penetration Resistance (N), modified as required for depth effects, sampling effects, etc.

SAMPLE DESIGNATIONS

AS - Auger Sample – Cuttings directly from auger flight
BS - Bottle or Bag Samples
S - Split Spoon Sample - ASTM D 1586
LS - Liner Sample with liner insert 3 inches in length
ST - Shelby Tube sample - 3 inch diameter unless otherwise noted
PS - Piston Sample - 3 inch diameter unless otherwise noted
RC - Rock Core - NX core unless otherwise noted

STANDARD PENETRATION TEST (ASTM D 1586) - A 2.0 inch outside-diameter, 1-3/8 inch inside-diameter split barrel sampler is driven into undisturbed soil by means of a 140-pound weight falling freely through a vertical distance of 30 inches. The sampler is normally driven three successive 6-inch increments. The total number of blows required for the final 12 inches of penetration is the Standard Penetration Resistance (N).

Appendix B

Slope Stability and Earth Retention Analyses

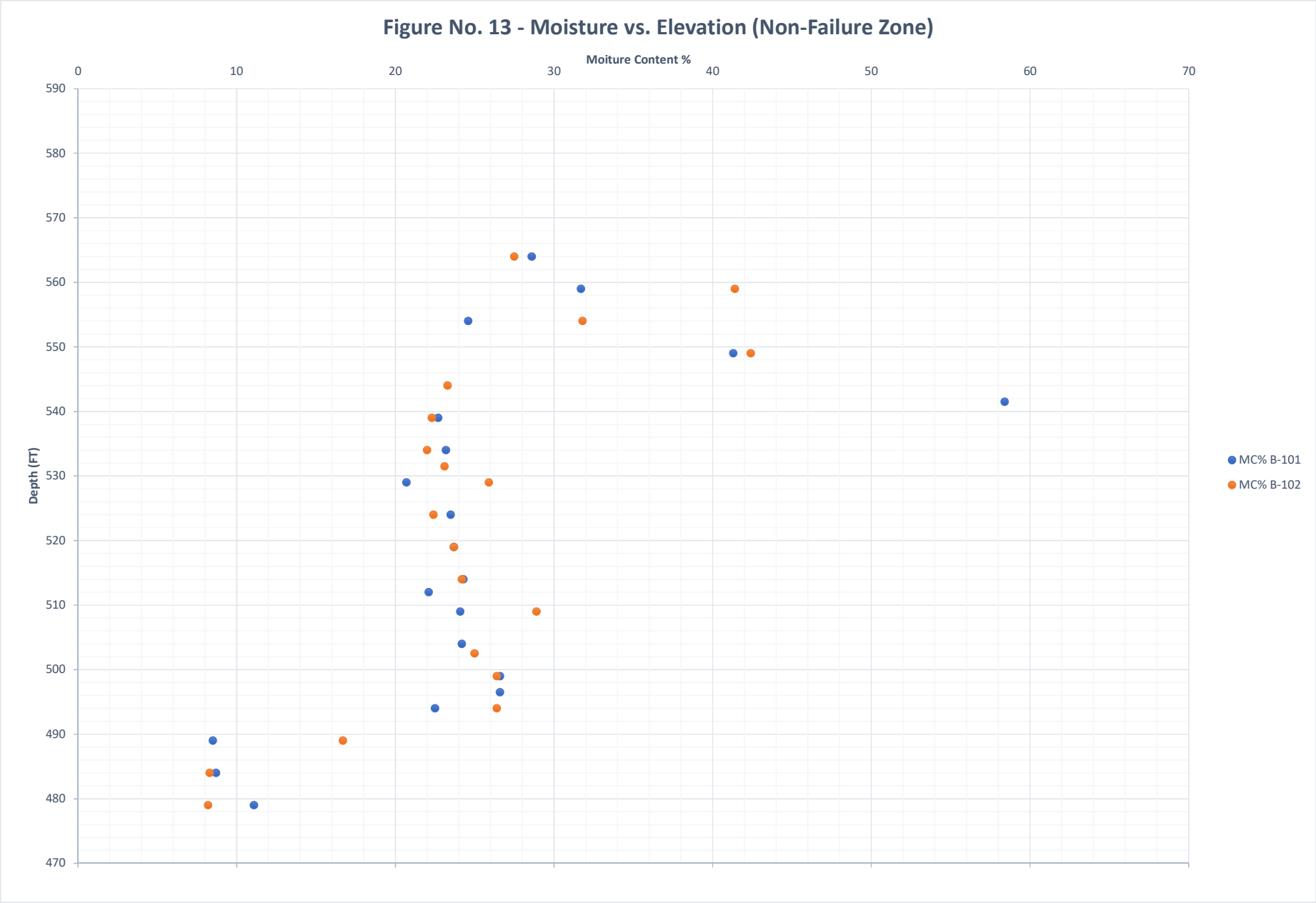


Figure No. 13 - Moisture vs. Elevation (Non-Failure Zone)
Moiture Content %
0
10
20
30
40
50
60
70
Depth (FT)
590
580
570
560
550
540
530
520
510
500
490
480
470
MC% B-101
MC% B-102

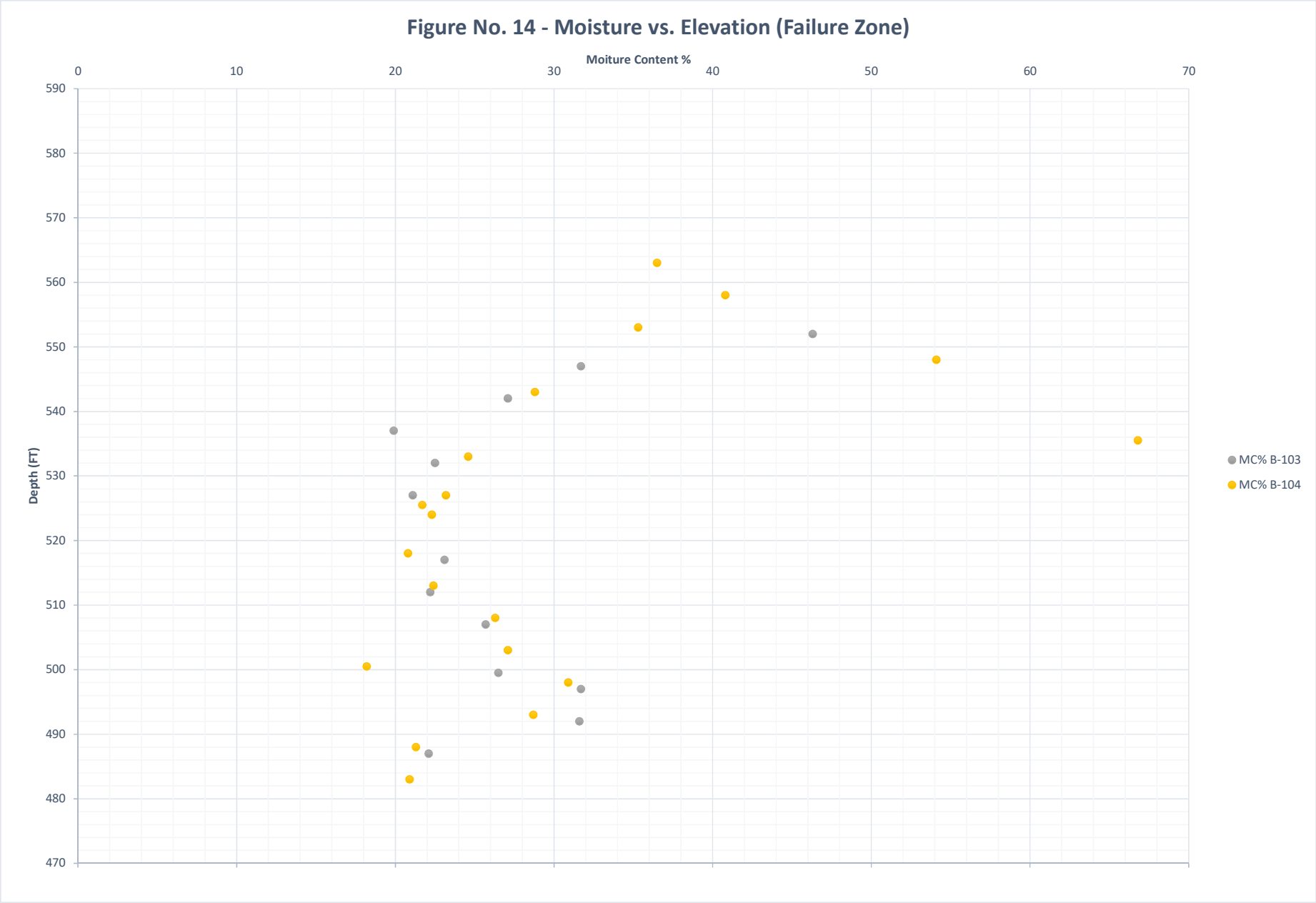


Figure No. 14 - Moisture vs. Elevation (Failure Zone)
Moiture Content %
0
10
20
30
40
50
60
70
Depth (FT)
590
580
570
560
550
540
530
520
510
500
490
480
470
MC% B-103
MC% B-104

FIGURE NO. 15 - COHESION VS. ELEVATION (NON-FAILURE ZONE)

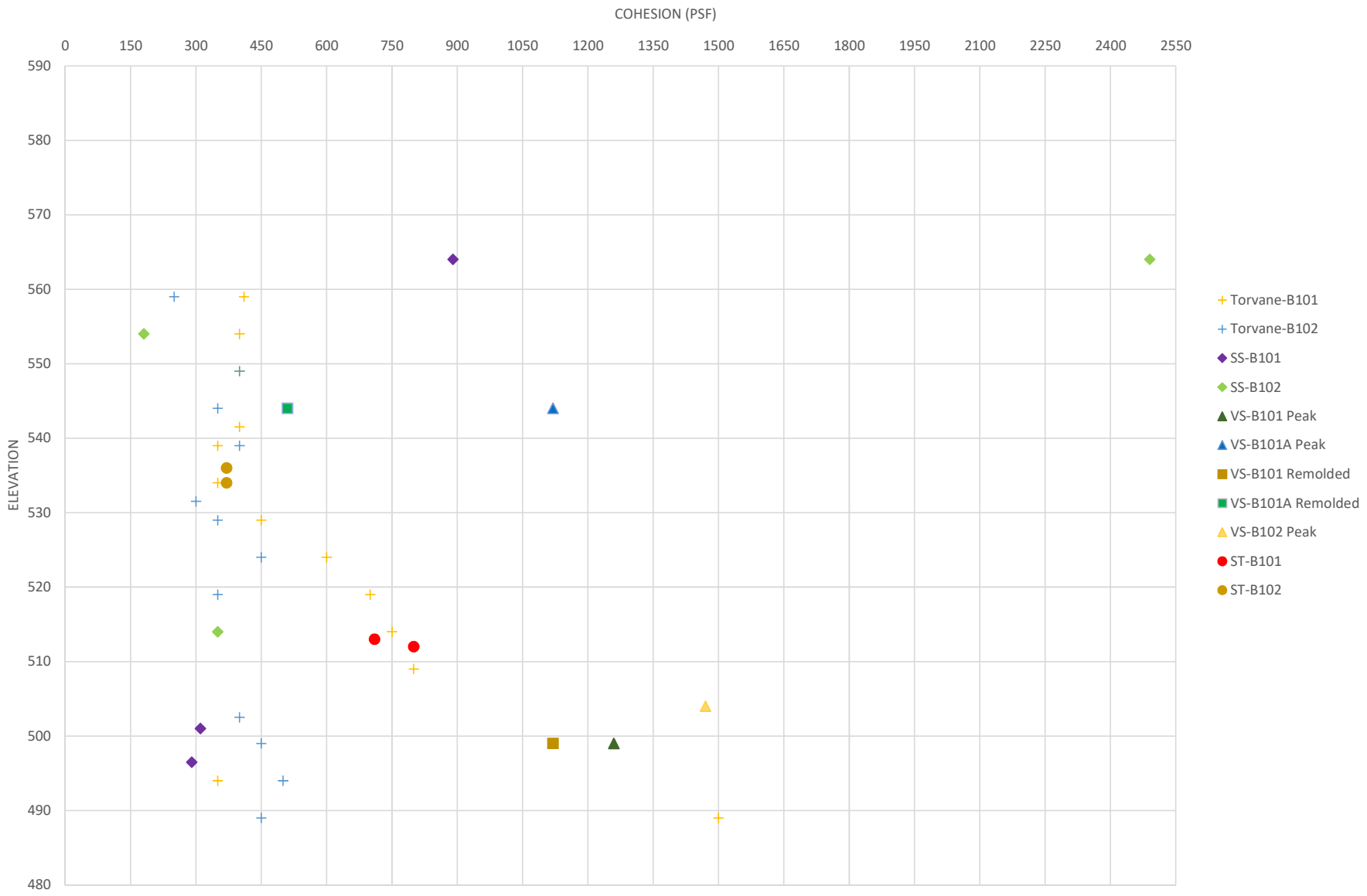
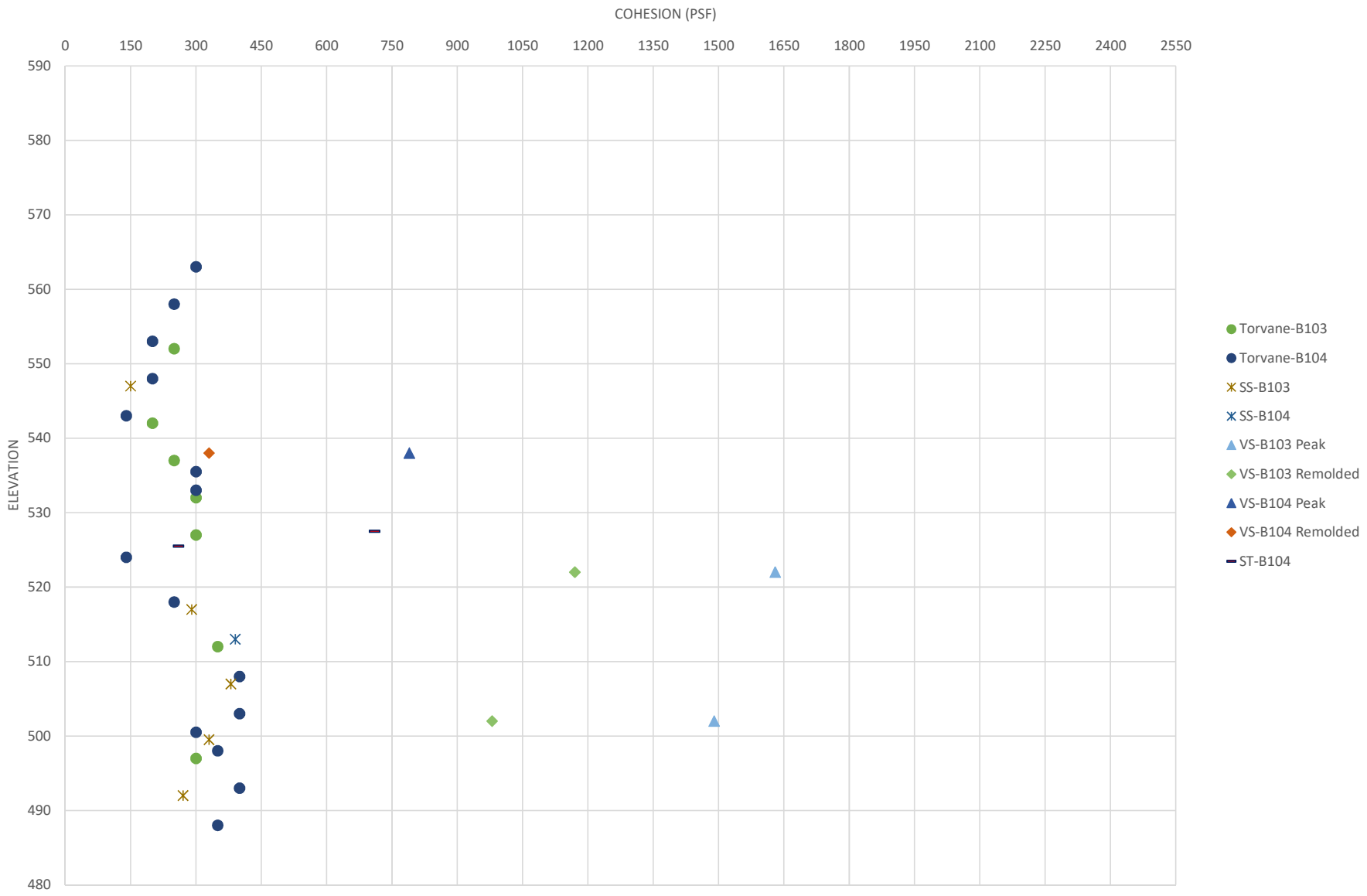


FIGURE NO. 16 - COHESION VS. ELEVATION (FAILURE ZONE)



Appendix C

Previous Investigation: Phase 1

CONSULTING GROUP

Report on Existing
Sea Wall Evaluation

Detroit River Heavy Lift Dock – Phase 1 Jefferson Avenue Detroit, Michigan

Prepared for:

Johnson & Anderson
4494 Elizabeth Lake Road
Waterford, Michigan 48328

G2 Project No. 150990
March 1, 2016

g2consultinggroup.com

Headquarters	1866 Woodslee St	Troy, MI 48083	P 248.680.0400	F 248.680.9745
Ann Arbor	1595 Eisenhower Pl	Ann Arbor, MI 48108	P 734.390.9330	F 734.390.9331
Chicagoland	1186 Heather Dr	Lake Zurich, IL 60047	P 847.353.8740	F 847.353.8742

CONSULTING GROUP

March 1, 2016

Mr. William J. Popp, P.E.
Johnson & Anderson
4494 Elizabeth Lake Road
Waterford, Michigan 48328

Re: Report on Wall Evaluation
Detroit River Heavy Lift Dock
Phase 1
Jefferson Avenue
Detroit, Michigan
G2 Project No. 150990

Dear Mr. Popp:

We have completed the Phase 1 investigation of the existing sea wall near the proposed development along Jefferson Avenue in Detroit, Michigan. This report presents the results of our observations and analysis and our recommendations regarding the existing sea wall.

We appreciate the opportunity to be of service to Johnson & Anderson and look forward to discussing the recommendations presented. In the meantime, if you have any questions regarding the report or any other matter pertaining to the project, please call us.

Sincerely,

G2 Consulting Group, LLC

Michael L. Evans, P.E.
Project Engineer

Mark S. Stapleton, P.E.
Project Manager

MLE/MSS

Enclosures

PROJECT DESCRIPTION

We understand a new heavy lift dock will be constructed along the Detroit River near the intersection of Jefferson Avenue and Campbell Street. In order to construct the new development an evaluation of the existing sea wall located between the addresses of 5815 and 5851 is required. Also, a Detroit Water and Sewerage Department (DWSD) outlet is located near the proposed development area.

Our ability to determine the capacity of the existing wall system is directly related to whether we can determine the physical geometry of the existing wall; therefore, the wall evaluation was broken up into two phases. The purpose of the Phase 1 investigation is to observe and evaluate the components of the existing wall, concrete cap, and tie-back system and provide recommendations for further study of the wall system.

SCOPE OF SERVICES

The field operations and engineering report preparation were performed under direction and supervision of a licensed professional engineer. Our services were performed according to generally accepted standards and procedures in the practice of geotechnical engineering in this area. Our scope of services for this project is as follows:

1. We performed five (5) test pits to observe the existing sea wall and anchor system. The test pits were performed adjacent to the concrete cap and along the tie-back system. The test pits ranged in depth from 6 to 7 feet below the existing grade.

2. An underwater observation of the existing wall system was performed by qualified divers. The divers performed a visual evaluation of the seawall and made measurements of the observed piles, dredge line, and concrete wall.

3. We prepared this engineering report. This report includes a description of the existing wall system and recommendations regarding the integrity of the existing wall system.

FIELD OPERATIONS

Test Pits

G2 Consulting Group, LLC (G2) contracted Eagle Excavating, Inc. to perform the test pits. G2 selected the location of the test pits while onsite. The location of the test pits are shown on Plate No. 1 in the appendix of this report. No ground surface information was available at the time of this report. All operations were conducted in accordance with the documentation of “Due Care Compliance” prepared by PM Environmental, dated July 14, 2015.

The test pit operations were performed using a CAT excavator fitted with a 24-inch wide bucket. G2 directed the contractor were to excavate. Once the concrete cap was exposed G2 observed the condition of the concrete and obtained measurements. A trench, parallel to the sea wall was excavated to locate the tie-back anchors. Once an anchor was exposed, a trench was excavated perpendicular to the sea wall along the tie rod back to the deadman anchor. Once exposed, the tie rod and concrete deadman were observed by the G2 representative.

CAT Excavator with 24-inch Buck Used to Perform Test Pits

Test Pit Trench Perpendicular to Sea Wall

Upon completion of the test pit operations and G2's observation of the existing wall system, the test pits excavations were backfilled with the excavated material. The compaction techniques were limited to the use of the excavator bucket and is not to be considered engineered backfill.

Diver Inspection

G2 contracted Lake Erie Diving, Inc. to perform the diving inspection. All operations were conducted in accordance with the documentation of "Due Care Compliance" prepared by PM Environmental, dated July 14, 2015.

Diver Inspection

Approximately 440 feet of the existing wall and the DWSD outfall structure were inspected. Pertinent dimensions to be obtained were explained to the dive team prior to the diving operations. Stationing was laid out on the existing wall and sounding was performed along the 440 foot section of wall. During the diving inspection, observations and measurements were made the supporting pile system, Wakefield Sheeting, dredge line, and the Detroit Water and Sewerage Department's (DWSD) outfall structure. The diver was directed by a G2 representative from the shoreline.

SUBSURFACE CONDITIONS

Soil Conditions

Approximately 8 to 12 inches of topsoil are present at the ground surface at the test pit locations. In general, silty sand fill underlies the topsoil and extends to the explored depths ranging from 6 to 7 feet below the ground surface. Multiple underground structures and debris, including underground cisterns, abandoned clay pipe, broken and intact glass, rolled copper, buried wires, and other debris, were encountered during the test pit operations. Also, a vertical steel pipe pile filled with concrete, approximately 11 inches in diameter, was encountered on the south side to the site. Large voids were observed within the silty fill which were mostly likely caused by the collapse of underground utilities. No native soils were exposed during the test pit operations.

Groundwater Conditions

Groundwater was encountered at depths ranging from 5 to 7 feet below the ground surface. In general groundwater was encountered at shallower depths near the sea wall.

Test Pit Adjacent to Sea Wall

General

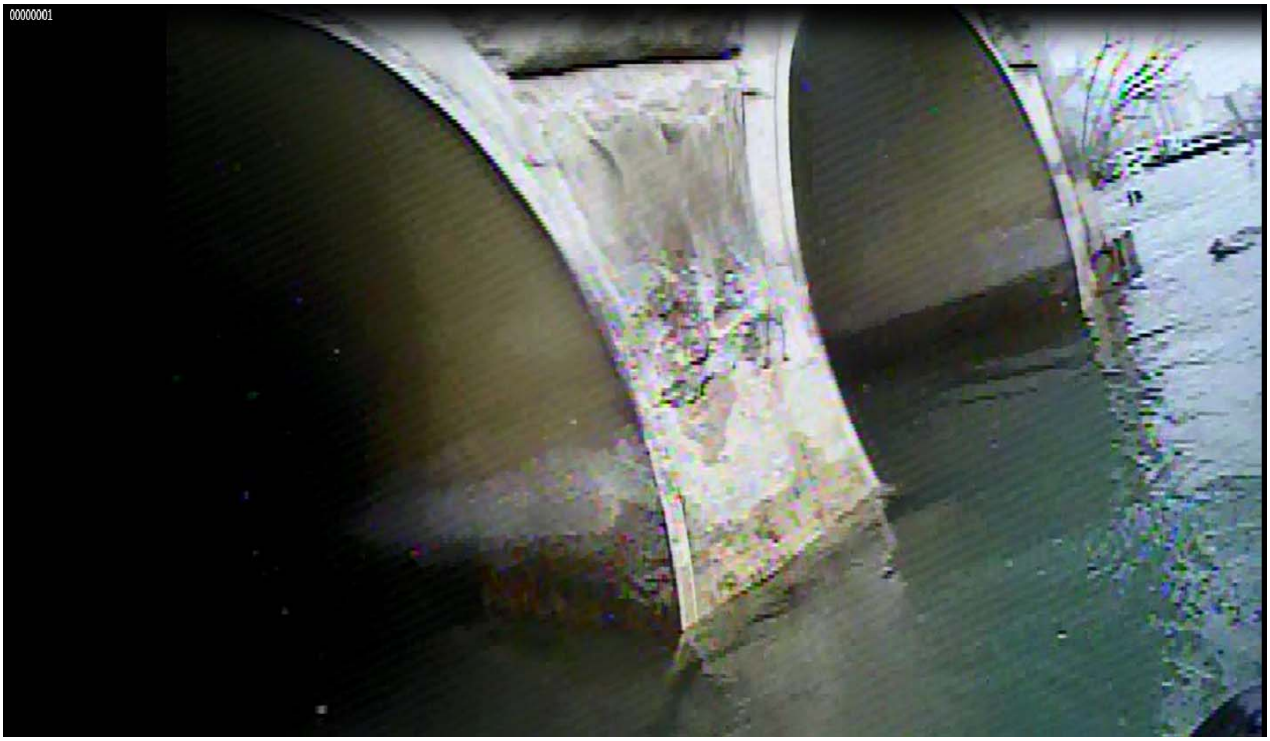
The soil conditions described above represent the soil conditions at the test pit locations. Variations may occur away from the test pit locations. The Test Pit Location Plan, Plate No. 1, is presented in the appendix.

Fluctuations in perched and long term groundwater levels should be anticipated due to seasonal variations and following periods of prolonged precipitation. In general, it appears the groundwater elevation is consistent with the elevations of the Detroit River.

EXISTING OBSERVATIONS

DWSD Outfall

The outfall structure is located at the north end of the project site and consist of a reinforced concrete box approximately 26 feet wide and extends approximately 14-1/2 feet from the top of the box to the river bottom. The top of the box is approximately 7-1/2 feet above the river elevation. Three 70-inch diameter pipes are present within the box. The distance from the north edge of the box to the first, second, and third pipes were measured to be 5-1/2 feet, 13 feet, and 20 feet, respectively. The distance from the top of the box to the pipe crowns was measured to be 3-1/2 feet. Approximately 18 to 24 inches of standing water was observed within the pipes.



Outfall Structure

The reinforced concrete box is supported on 12-inch to 18-inch diameter timber piles with 4-inch thick Wakefield sheeting spanning from pile to pile. The piles are spaced approximately 42-inches to 52-inches on center. The Wakefield sheeting is highly detreated with large gaps from the bottom of the structure to the top of the sheeting.

Sea Wall

The existing sea wall consist of a reinforced concrete retaining wall, with concrete deadmen, sitting on a concrete base slab supported on timber piles. Wakefield sheets span the timber piles.

Reinforced Concrete Wall

The reinforced concrete structure consist of a trapezoidal concrete wall supported on a concrete base slab. The water face of the wall is vertical and is approximately 7 feet tall. Approximately 24 to 30 inches of the wall is submerged in the river. The top of the wall is 2 feet wide and the base of the wall is approximately 5 feet wide. The concrete slab extends 5 feet inland from the edge of the wall. The base slab was approximated to be 1 foot thick. The actual thickness of the slab could not be determined due to the presence of water within the test pits. Please see the Figure No.1 in the Appendix of this report for an approximate cross section of the existing sea wall.

The water side of the concrete appears to be damaged and deteriorating. The concrete appears to have been damaged by vessel impact and ice flow and has exposed the reinforcing steel. The exposed reinforcing steel will compromise the structural capacity of the existing wall system.

Exposed Reinforcing Steel at the Base of the Concrete Wall

Timber Piles

The reinforced concrete structure is support on timber piles 12 to 18 inches in diameter. The piles are arranged in a grid pattern spaced from 42 to 60-inches on center parallel to the existing sea wall. Three rows of piles are present underneath the structure and are spaced at 42 to 52-inches on center. The total length of the timber piles could not be determined; however, our experience is that timber piles range from 40 to 50 feet in length.

Timber Pile Measurement

Wakefield Sheeting

In general, Wakefield sheeting spans from timber pile to timber pile landward of the third row of piles. The Wakefield sheeting runs horizontally and is approximately 4-inches thick and 12-inches wide. The sheeting is supported with wales consisting of 6 x 12 timber planks. The sheeting is highly deteriorated. The diving inspector observed areas where the sheeting had completely rotted and left gaps (some approximately 3 feet) between the bottom of the concrete base slab and the top of the sheeting. The river bottom slopes upward from the water face side for the sea wall to the Wakefield sheeting. The water depth at the water face side of the sea wall was measured to vary from approximately 10 feet to 16 feet.

Wakefield Sheeting

Anchor System

The anchor system consist of concrete deadmen and steel ties rods spaced at approximately 16 feet on center. The tie rod appears to be a 2-inch outside diameter threaded steel rod. The two exposed concrete deadmen are located approximately 75 and 90 feet behind the water face of the reinforced concrete retaining wall. The concrete deadman are approximately 3 feet wide, 3 feet deep, and 7 feet long.

The concrete deadman appear to be in relatively good condition; however, the steel tie rods and the tensioning turnbuckle are in very poor condition. Also, the G2 representative noted that the tie rods appeared to have little tension on them which would indicate the wall anchorage system is not functioning as intended.

Back of Concrete Deadman

Front of Concrete Deadman and Tie Rod Connection

Corroded Tie-Rod to Concrete Deadman Connection

CONCLUSIONS

Based on our study, it is our opinion that the current sea wall system was designed for shallow drag vessels such as tugs and barges. In addition, the existing sea wall, in its current deteriorated state, has little to no capability to support lateral loads. Since the future plan includes the facilitating and mooring of the current fleet of Great Lakes freighters, it is our opinion that the existing structure will not support the proposed development and a new sea wall system is required. We recommend the Phase 2 geotechnical investigation be performed in order to design sea wall alternatives to support the planed future use.

GENERAL COMMENTS

We have formulated the evaluations and recommendations presented in this report relative to the existing sea wall evaluation on the basis of data provided to us relating to the project location, type of structures, and surface grade for the proposed site. Any significant change in this data should be brought to our attention for review and evaluation with respect to prevailing subsurface conditions. Furthermore, if changes occur in the design, location, or concept of the project, conclusions and recommendations contained in this report are not valid unless G2 Consulting Group, LLC reviews the changes. G2 Consulting Group, LLC will then confirm the recommendations presented herein or make changes in writing.

The scope of the present investigation was limited to evaluation of the existing sea wall. No chemical, environmental, or hydrogeological testing or analyses were included in the scope of this investigation.

We base the analyses and recommendations submitted in this report upon the data from the test pits and divers inspection. This report does not reflect variations that may occur between the test pit locations. The nature and extent of any such variations may not become clear until the time of construction.

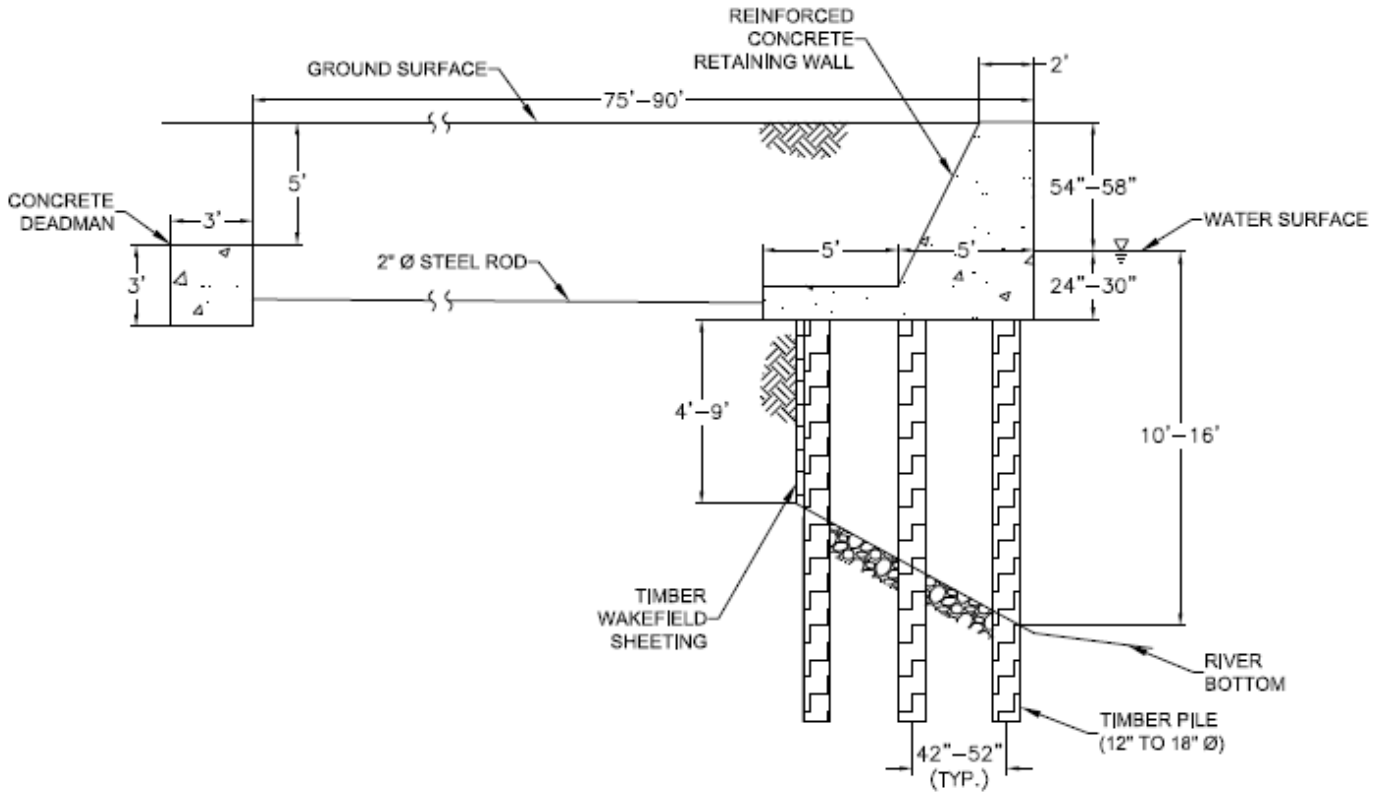
APPENDIX

Test Pit Location Plan	Plate No. 1
Existing Sea Wall Cross Section	Figure No. 1

Legend

Approximate Excavation Locations

Test Pit Location Plan		
Detroit River Heavy Lift Dock 5815-5851 W. Jefferson Avenue Detroit, Michigan		
2G CONSULTING GROUP	Project No. 150990	
	Drawn by: MGD	
	Date: 1/27/16	Plate No. 1
	Scale: NTS	



Existing Sea Wall Cross Section		
Detroit River Heavy Lift Dock Jefferson Avenue Detroit, Michigan		
2G CONSULTING GROUP	Project No. 150990	
	Drawn by: MLE	
	Date: 3-1-16	Figure No. 1
	Scale: NTS	

Appendix D

Previous Investigation: Phase 2

CONSULTING GROUP

Report on Geotechnical Investigation

Detroit River Heavy Lift Dock – Phase II Jefferson Avenue Detroit, Michigan

Prepared for:

Johnson & Anderson
4494 Elizabeth Lake Road
Waterford, Michigan 48328

G2 Project No. 150990
September 2, 2016

g2consultinggroup.com

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Chicagoland	1186 Heather Dr	Lake Zurich, IL 60047	P 847.353.8740	F 847.353.8742

CONSULTING GROUP

September 2, 2016

Mr. William J. Popp, P.E.
Johnson & Anderson
4494 Elizabeth Road
Waterford, Michigan 48328

Re: Report of Geotechnical Investigation
Detroit Heavy Lift Dock – Phase II
Jefferson Avenue
Detroit, Michigan
G2 Project No. 150990

Dear Mr. Popp:

We have completed the Phase II geotechnical investigation for the proposed Detroit Heavy Lift Dock to be constructed along Jefferson Avenue in Detroit, Michigan. This report presents the results of our observations and analyses and our recommendations for earthwork operations, foundation design, and construction considerations as they relate to the geotechnical conditions on site.

We appreciate the opportunity to be of service to Johnson & Anderson and look forward to discussing the recommendations presented. In the meantime, if you have any questions regarding our report or any other matter pertaining to the project, please contact us.

Sincerely,

G2 Consulting Group, LLC

Michael L. Evans, P.E.
Project Engineer

Mark S. Stapleton, P.E.
Project Manager

MLE/MSS/ljv

Enclosures

EXECUTIVE SUMMARY

We understand a new heavy lift dock will be constructed along the Detroit River near the intersection of Jefferson Avenue and Campbell Street. This report is limited to the site elements within 100 feet of the shoreline; which includes the proposed seawall along the Detroit River, the City of Detroit sewer outlet, and the crane pad.

No distinct topsoil layer was observed at the boring locations; however, topsoil should be anticipated throughout the development area. Very loose to medium compact sand and clayey sand fill and medium to hard silty clay fill are present at the ground surface at the boring locations and extend to depths ranging from 12 to 18 feet. In general, native medium to stiff silty clay underlies the fill soils and extends to depths ranging from 16 to 23 feet below the ground surface. Very soft to soft silty clay is present beneath the medium to stiff silty clay and extends to depths ranging from 87 to 89 feet. Very loose to medium compact silt and sandy silt underlies the silty clay and extends to a depth of 92 feet. A layer of very compact gravelly sand is present within boring B-1 between 92 and 104 feet. Very weak to moderately weak completely weathered to highly weathered shale underlies the granular soils and extends to the explored depths ranging from 100 to 105 feet. During drilling operations, groundwater was observed at a depth of 6 feet below the ground surface (EL 95 feet to 96 feet) within all of the soil borings. No groundwater reading could be recorded upon completion of the drilling operations due to the addition of drilling mud to the boreholes during the drilling operators. In general, groundwater levels at the project site are consistent with the adjacent Detroit River elevation.

The existing grades throughout the site range from approximately 100 to 108 feet, and in general, slope from the northwest to the southeast towards the Detroit River. We understand the proposed final grade elevation for the development is 107 feet. Therefore, up to 7 feet of fill will be placed near the shoreline in order to achieve the proposed final grade. Placement of 7 feet of engineered fill will cause consolidation of the underlying very soft to medium silty clay. If substantial settlement cannot be tolerated, the site could be surcharged prior to construction. The surcharge load should remain in-place until settlement subsides. We anticipate settlement will take 3 to 6 months. The consolidation could be accelerated by increasing the surcharge load.

We understand a new seawall will be constructed along the Detroit River. Once the site grades are raised and the proposed river dredging operations are completed, the height of retained soil for the new seawall will be approximately 43 feet. One proposed option for the seawall consists of a steel sheet and king pile system with tie-backs. Our analysis shows, a seawall with one row of tie-backs requires a wall section 106 feet long with a section modulus of 915.5 in^3 per foot. The tie-backs, placed 6 feet from the top of the wall and spaced at 10 feet on center, would require a capacity in excess of 855 kips. A seawall with two rows of tie-backs (6 feet and 40 feet from the top of the wall) requires a wall section 50 feet long with a section modulus of 44.5 in^3 per foot is required. The upper tie-back would require a capacity in excess of 103 kips and the lower tie-back a capacity in excess of 730 kips.

We recommend the proposed crane pad structure be supported on a deep foundation system. We recommend HP 12x53 piles bearing within the shale be used for the support of the crane pad. A nominal pile capacity of 350 kips can be used for design of the foundations for piles bearing within competent rock. Based on the encountered subsurface conditions, we anticipate pile tip elevations will range from -9 to 2 feet. Prior to the installation of the piles, a Wave Equation Analysis for Piles (WEAP) should be performed by a qualified geotechnical engineer to establish the required driving resistance indicative of the design pile capacity. We also recommend the design pile capacities be evaluated by a Pile Load Test ASTM D1143 or Pile Dynamic Analysis (PDA) testing.

This summary is not to be considered separate from the entire text of this report with all the conclusions and qualifications mentioned herein. Details of our analysis and recommendations are discussed in the following sections and in the Appendix of this report.

PROJECT DESCRIPTION

We understand a new heavy lift dock will be constructed along the Detroit River near the intersection of Jefferson Avenue and Campbell Street. The current proposed site plan includes a marine yard building, multiple equipment storage buildings, a rack storage & marine assembly / staging area, and a barge slip / dry dock with an adjacent crane; however, this report is limited to the site elements within 100 feet of the shoreline. This includes the proposed seawall along the Detroit River, the City of Detroit sewer outlet, and the crane pad.

Exiting grades range from approximately 100 to 108 feet across the site, and in general, slope from the northwest to the southeast toward the Detroit River. We understand the proposed final grade of the development is 107 feet. Therefore, up to 7 feet of fill will be placed in order to obtain the proposed final grades. The crane pad loading and seawall surcharge loading were not available at the time of this report. Once the final loading conditions become available, G2 Consulting Group, LLC (G2) must be notified so we can review the recommendations provided herein.

SCOPE OF SERVICES

The field operations, laboratory testing, and engineering report preparation were performed under the direction and supervision of a licensed professional engineer. Our services were performed according to generally accepted standards and procedures in the practice of geotechnical engineering. Our scope of services for this project is as follows:

1. We drilled a total of four (4) soil borings within the proposed development. Soil borings B-1 through B-3 were performed along the shoreline and extended to bedrock, which was encountered between 100 and 105 feet below the existing ground surface. B-4 was performed near the existing City of Detroit sewer outlet and extended to a depth of 50 feet below the ground surface. The proposed Scope of Work called for boring B-4 to extend to a depth of 30 feet; however, the boring was extended to 50 feet in the field in order to gain additional soils data.

2. We performed laboratory testing on representative samples obtained from the soil borings. Laboratory testing included visual engineering classification, natural moisture content, dry density, and unconfined compressive strength determinations.

3. We prepared this engineering report. Our report includes recommendations regarding the proposed seawall, crane pad, sewer outlet, and construction considerations related to site preparation and construction.

FIELD OPERATIONS

Johnson & Anderson, in association with G2, selected the number, depth, and location of the soil borings. The soil boring locations were determined in the field by measuring from existing site features and landmarks using conventional taping methods. The approximate soil boring locations are shown on the Soil Boring Location Plan, Plate No. 1. The ground surface elevations at the boring locations were interpolated from the topographical survey prepared by Environmental Engineers, Inc. Project No. 1527 dated August 20, 2015.

The soil borings were drilled using an all-terrain vehicle (ATV) mounted rotary drilling rig. Continuous flight 4-1/4 inch, inside diameter, hollow-stem augers were used to advance the boreholes to depths ranging from 10 to 20 feet. A 3-7/8 inch tri-cone drill bit was then used to the advance the boreholes to the explored depths. Within each soil boring, soil samples were obtained at intervals of 2-1/2 feet within the upper 10 feet and at intervals of 5 feet below that depth. These samples were obtained by the Standard Penetration Test method (ASTM D 1586), which involves driving a 2-inch diameter split-spoon sampler into the soil with a 140-pound weight falling 30 inches. The sampler is generally driven

three successive 6-inch increments with the number of blows for each increment recorded. The number of blows required to advance the sampler the last 12 inches is termed the Standard Penetration Resistance (N). Blow counts for each 6-inch increment and the resulting N-values are presented on the individual soil boring logs.

In addition, two (2) high-quality Shelby tube samples were obtained. The thin-walled tube is 3-inches in diameter and 30 inches in overall length. The samples were obtained in general accordance with the Standard Practice for Thin-Walled Tube Geotechnical Sampling of Soils, as described in ASTM D 1587.

The in-situ undrained shear strength of the cohesive soils was determined at three (3) depths within soil boring B-4 in general accordance with the Standard Test Method for Filed Vane Shear Test in Cohesive Soil, as described in ASTM D 2573. The results of the vane shear tests are presented on the soil boring logs as equivalent unconfined compressive strengths.

The soil samples were placed in sealed containers in the field and brought to our laboratory for testing and classification. During field operations, the driller maintained logs of the encountered subsurface conditions, including changes in stratigraphy and observed groundwater levels. The final boring logs are based on the field logs supplemented by laboratory soil classification and test results. Upon completion of drilling operations, the boreholes were backfilled with a cement/bentonite grout mix.

LABORATORY TESTING

Representative soil samples were subjected to laboratory testing to determine soil parameters pertinent to seawall design, crane pad design, and site preparation. An experienced geotechnical engineer classified the samples in general conformance with the Unified Soil Classification System.

Laboratory testing included natural moisture content, dry density, and unconfined compressive strength determinations. The unconfined compressive strengths were determined by ASTM Test Method D 2166, using a spring-loaded hand penetrometer, using a Torvane shear device, and ASTM Test Method D 2573 (Vane Shear in the field). Per ASTM Test Method D 2166, the unconfined compressive strength of cohesive soils is determined by axially loading a small cylindrical soil sample under a slow rate of strain. The unconfined compressive strength is defined as the maximum stress applied to the soil sample before shear failure. If shear failure does not occur prior to a total strain of fifteen percent, the unconfined compressive strength is defined as the stress at a strain of fifteen percent. The hand penetrometer estimates the unconfined compressive strength to a maximum of 4-1/2 tons per square foot (tsf) by measuring the resistance of the soil sample to the penetration of a calibrated spring-loaded cylinder. The hand-held Torvane estimates the shear strength to a maximum of 1 tsf by measuring the resistance of the soil sample to the applied torque of a vane seated in the soil sample.

The results of the moisture content, dry density, and unconfined compressive strength tests are indicated on the soil boring logs at the depths the samples were obtained. We will hold the soil samples for 60 days from the date of this report. If you would like us to retain the samples beyond this date, or you would like the samples, please let us know.

SITE DESCRIPTION

The proposed site is located on the south side of Jefferson Avenue between South Cavalry Street and South Campbell Street in Detroit, Michigan. The site is general open and covered with grass and a few trees. Site grades range from approximately 100 to 108 feet, and in general, slope from the northwest to the southeast toward the Detroit River. The parcel formerly housed an industrial building, which has been demolished. The Detroit River bounds the site to the south. The current seawall consists of a concrete retaining wall supported on timber piles with Wakefield Sheeting. Fort Wayne bounds the site to the west. The properties to the north are residential, and the properties to the east are commercial.

SOIL CONDITIONS

No distinct topsoil layer was observed at the boring locations; however, topsoil should be anticipated throughout the development area. Sand and clayey sand fill are present at the ground surface at the boring locations and extend to depths ranging from 3 to 17 feet. Silty clay fill underlies the granular fill within borings B-1 and B-2 and extends to depths of 8 feet and 18 feet, respectively. Sand fill underlies the silty clay fill within boring B-1 and extends to a depth of 14-1/2 feet below the ground surface. Native silty clay is present beneath the fill soils and extends to depths ranging from 87 to 89 feet within borings B-1 through B-3 and extends to the explored depth of 50 feet within boring B-4. Silt, sandy silt, and gravelly sand underlie the silty clay within borings B-1 through B-3 and extend to depths ranging from 92 to 104 feet. Completely weathered to highly weathered shale underlies the granular soils and extends to the explored depths ranging from 100 to 105 feet.

The sand and clayey sand fill are very loose to medium compact with Standard Penetration Test (SPT) N-values ranging from 2 to 29 blows per foot (bpf). The silty clay fill is medium to hard in consistency with moisture contents ranging from 21 to 29 percent, a dry density of 115 pounds per cubic foot (pcf), and unconfined compressive strengths ranging from 1,000 to 9,000 pounds per square foot (psf). In general, the native silty clay is very soft to medium in consistency with natural moisture contents ranging from 18 to 45 percent, dry densities ranging from 80 to 127 pcf, and unconfined compressive strengths ranging from 200 to 1610 psf. Layers of stiff silty clay, with natural moisture contents of 22 and 29 percent, dry densities of 102 and 97 pcf, and unconfined compressive strengths of 2,930 and 3,060 psf, are present within borings B-1 and B-3 between depths of 18 to 23 feet and 12 to 16 feet, respectively. The silt and sandy silt are very loose to medium compact with SPT N-values ranging from 3 to 29 bpf. The gravelly sand is very compact with an SPT N-value of 52 blows for 6 inches of penetration. The shale is very weak to moderately weak.

The stratification depths shown on the soil boring logs represent the soil conditions at the boring locations. Variations may occur between borings. Additionally, the stratigraphic lines represent the approximate boundaries between soil types. The transition may be more gradual than what is shown. We have prepared the boring logs on the basis of laboratory classification and testing, as well as field logs of the soils encountered.

The Soil Boring Location Plan, Plate No. 1, Soil Boring Logs, Figure Nos. 1 through 4, and Unconfined Compressive Strength Test, Figure Nos. 5 through 8, are presented in the Appendix. The soil profiles described above are generalized descriptions of the conditions encountered at the boring locations. General Notes Terminology and Classification of Rock Strata defining the nomenclature used on the soil boring log and elsewhere in this report are presented on Figure Nos. 9 and 10, respectively.

GROUNDWATER CONDITIONS

During drilling operations, groundwater was observed at a depth of 6 feet below the ground surface (EL 95 feet to 96 feet) within all of the soil borings. No groundwater reading could be recorded upon completion of the drilling operations due to the addition of drilling mud to the boreholes during the drilling operators. In general, groundwater levels at the project site are consistent with the adjacent Detroit River elevation.

Fluctuations in perched and long term groundwater levels should be anticipated due to seasonal variations and following periods of prolonged precipitation. It should also be noted that groundwater observations made during drilling operations in predominantly cohesive soils are not necessarily indicative of the static groundwater level. This is due to the low permeability of such soils and the tendency of drilling operations to seal off the natural paths of groundwater flow.

SITE PREPARATION RECOMMENDATIONS

The existing grades throughout the site range from approximately 100 to 108 feet, and in general, slope from the northwest to the southeast towards the Detroit River. We understand the proposed final grade elevation for the development is 107 feet. Therefore, up to 7 feet of fill will be placed near the shoreline in order to achieve the proposed final grade. Placement of 7 feet of engineered fill will cause consolidation of the underlying very soft to medium silty clay. If substantial settlement cannot be tolerated, the site could be surcharged prior to construction. The surcharge load should remain in-place until settlement subsides. We anticipate settlement will take 3 to 6 months. The consolidation could be accelerated by increasing the surcharge load.

We anticipate earthwork operations will consist of removing any topsoil or vegetation from the site, proof rolling the exposed subgrade, placing and compacting engineered fill to achieve finished grades, and preparing the site for concrete slab support. We recommend all earthwork operations be performed in accordance with comprehensive specifications and be properly monitored in the field by qualified field technicians under the direction of a licensed engineer.

Once the existing topsoil and vegetation have been removed and prior to placing any engineered fill, the exposed subgrade, anticipated to consist primarily of granular fill, should be thoroughly proof rolled with a heavy rubber-tired vehicle, such as a loaded dump truck, and visually evaluated for instability and/or unsuitable soil conditions. Any unstable or unsuitable areas noted should be removed and replaced with engineered fill or improved with additional compaction. The granular fill subgrade can be densified by making a minimum of 10 passes in two perpendicular directions over the unstable area with a 15-ton smooth drum vibratory roller.

Engineered fill should be free of organic matter, frozen soil, clods, or other harmful material. Frozen material should not be used as fill, nor should fill be placed on a frozen subgrade. Engineered fill should be placed in uniform horizontal layers, not more than 9 inches in loose thickness. The engineered fill should be compacted to achieve a density of at least 95 percent of the maximum dry density as determined by the Modified Proctor compaction test (ASTM D 1557). All cohesive engineered fill material should be placed and compacted at moisture contents between the optimum moisture content and up to 3 percent above the moisture content. Any granular engineered fill material should be placed and compacted at moisture contents within 2 percent above or below the optimum moisture content.

PROPOSED SEAWALL RECOMMENDATIONS

The existing seawall consists of a reinforced concrete retaining wall, with concrete deadmen, sitting on a concrete base slab supported on timber piles. Wakefield sheets span the timber piles. G2 evaluated the existing seawall in our Phase I report dated March 1, 2016, and concluded the wall was not sufficient for the site's intended use.

We anticipate approximately 7 feet of fill will be placed near the shoreline. In addition, the river bottom will be dredged in order to accommodate the ship traffic. Therefore, the height of retained soil for the new seawall will be approximately 43 feet. One proposed option for the seawall consists of a steel sheet and king pile system with tie-backs. The sheeting and king piles would be installed in front of the existing concrete seawall, and the void beneath the concrete slab would be backfilled. Our analysis shows, a seawall with one row of tie-backs requires a wall section 106 feet long with a section modulus of 915.5 in^3 per foot. The tie-backs, placed 6 feet from the top of the wall and spaced at 10 feet on center, would require a capacity in excess of 855 kips.

In order to reduce the length of the wall section, a second design was developed with two rows of tie-backs. The second tie-back was placed 40 feet below the top of the wall. Our analysis shows, a wall section 50 feet long with a section modulus of 44.5 in^3 per foot is required. The upper tie-back, 6 feet

from the top of the wall and spaced at 10 feet on center, would require a capacity in excess of 103 kips. The lower tie-back, 40 feet from the top of the wall and spaced at 10 feet on center, would require a capacity in excess of 730 kips.

CRANE PAD FOUNDATIONS

We understand a crane pad will be constructed adjacent to the shoreline. The final loading conditions for the crane pad were not available at the time of this report. Once the final loading conditions are determined, G2 must be notified in order to evaluate the recommendations presented in this report. Based on the encountered soil conditions, the proposed structure must be supported on a deep foundation system. We recommend HP 12x53 piles bearing within the shale be used for the support of the crane pad. A nominal pile capacity of 350 kips can be used for design of the foundations for piles bearing within competent rock. Based on the encountered subsurface conditions, we anticipate pile tip elevations will range from -9 to 2 feet.

Once the pile driving operations are complete, grade beams and/or pier caps will be required to transfer the crane pad loads to the foundation system. Exterior grade beams and pier caps must be protection from frost penetration.

Prior to the installation of the piles, a Wave Equation Analysis for Piles (WEAP) should be performed by a qualified geotechnical engineer to establish the required driving resistance indicative of the design pile capacity. The WEAP will consider the subsurface conditions, pile section, and contractor selected pile hammer. We recommend the design pile capacities be evaluated by a Pile Load Test ASTM D1143 or Pile Dynamic Analysis (PDA) testing.

If the recommendations outlined in this report are adhered to, total and differential settlements for the completed structure should be within 1 inch and ½ inch, respectively. We expect settlements of these magnitudes are within tolerable limits for the type of structure proposed. We recommend a qualified geotechnical engineer be on site during construction to observe construction operations, soil conditions and verify the adequacy of the soils during pile driving operations.

SLAB-ON-GRADE CONCRETE RECOMMENDATIONS

We anticipate the concrete crane pad will be supported on engineered fill underlain by the existing fill soils. As previously mentioned, significant settlement should be anticipated due to the existing grades being raised up to 7 feet. If significant settlement of the concrete slab can be tolerated, the slab can be supported on grade. A subgrade modulus (k) of up to 90 pounds per cubic inch (pci) may be used in the design of concrete slabs supported on engineered fill underlain by the existing fill soils. The concrete slab should be isolated from the foundation system to allow for independent movement.

If significant concrete slab settlement cannot be tolerated, a structural concrete slab will be required. The structural floor slab must be designed by a licensed professional engineer.

CITY OF DETROIT OUTFALL STRUCTURE

The existing outfall consists of three concrete pipes contained within a box structure supported on piles. The exact age of the structure was unknown at the time of this report; however, around 1933 the structure was repaired due to the damaged arches within each of the pipes. The pipes where cut at the spring line and a reinforced concrete cap was construed atop the structure. Since the structural capacity of the concrete box structure and pile foundation system are unknown, we recommend lightweight fill, such as expanded polystyrene blocks, be used to raise the site grades over the outfall. In addition, we recommend no material be stored or stockpiled on top of the outfall structure.

CONSTRUCTION CONSIDERATIONS

During drilling operations, groundwater was observed at a depth of 6 feet below the ground surface (EL 95 feet to 96 feet) within all of the soil borings. Therefore, any excavation extending below an approximate elevation of 96 feet will require dewatering. Well-point dewatering is the preferred method of dewatering, where feasible, since it will allow for adequate stabilization and preparation of the excavation bottom.

We recommend well points be installed to lower the groundwater level prior to beginning any excavation operations. The groundwater level should be lowered to at least 2 feet below the expected depth of excavation. The well points should be installed by a qualified dewatering contractor. The spacing of the well points will depend on the depth of the wells points, the size of the pump that will be used, and the effective hydraulic conductivity of the soils being dewatered. For estimation purposed, it may be assumed that the sand fill will have an approximate hydraulic conductivity of 6x10-5 and 1x10-3 cm/sec; however, the dewatering contractor should perform his own pump tests to determine the actual hydraulic conductivity of the soil.

We recommend a maximum slope of 1-1/2H:1V (horizontal: vertical) within the existing granular and cohesive fill soils. All excavations should be safely sheeted, shored, sloped, or braced in accordance with MI-OSHA requirements. If material is stored or equipment is operated near an excavation, stronger shoring must be used to resist the extra pressure due to the superimposed loads.

GENERAL COMMENTS

We have formulated the evaluations and recommendations presented in this report relative to the seawall design, crane pad foundations, outfall structure, and site preparation on the basis of data provided to us relating to the location, type, and grade for the proposed site. Any significant change in this data should be brought to our attention for review and evaluation with respect to the prevailing subsurface conditions.

The scope of the present investigation was limited to evaluation of subsurface conditions for the site elements within 100 feet of the shoreline. No chemical, environmental, or hydrogeological testing or analyses were included in the scope of this investigation. If changes occur in the design, location, or concept of the project, the conclusions and recommendations contained in this report are not valid unless G2 Consulting Group, LLC reviews the changes. G2 Consulting Group, LLC will then confirm the recommendations presented herein or make changes in writing.

We have based the analyses and recommendations submitted in this report upon the data from soil borings performed at the approximate locations shown on the Soil Boring Location Plan, Plate No. 1. This report does not reflect variations that may occur between the actual boring locations and the actual structure locations. The nature and extent of any such variations may not become clear until the time of construction. If significant variations then become evident, it may be necessary for us to re-evaluate our report recommendations.

Soil conditions at the site could vary from those generalized on the basis of soil borings made at specific locations. It is, therefore, recommended that a qualified construction materials testing firm be retained to provide soil engineering services during the site preparation, excavation, and construction phases of the proposed project. This is to observe compliance with the design concepts, specifications, and recommendations. Also, this allows design changes to be made in the event that subsurface conditions differ from those anticipated prior to the start of construction.

APPENDIX

Soil Boring Location Plan	Plate No. 1
Soil Boring Logs	Figure Nos. 1 through 4
Unconfined Compressive Strength Test	Figure Nos. 5 through 8
General Notes Terminology	Figure No. 9
Classification of Rock Strata	Figure No. 10

Legend

Soil Borings Performed by Brax Drilling, Inc. on August 9 through 12, 2016

Soil Boring Location Plan		
Detroit River Heavy Lift Dock - Phase II Jefferson Avenue Detroit, Michigan		
2G CONSULTING GROUP	Project No. 150990	
	Drawn by: MLE	
	Date: 8-3-16	Plate No. 1
	Scale: NTS	

Project Name: Detroit River Heavy Lift Dock - Phase II

Project Location: Jefferson Avenue
Detroit, Michigan

G2 Project No. 150990

Latitude: N/A Longitude: N/A

Soil Boring No. B-1

G2 CONSULTING GROUP

SUBSURFACE PROFILE / SOIL SAMPLE DATA

GROUND SURFACE ELEVATION: 101.0 ft ±

ELEV. (ft)	PRO-FILE	Description	Depth (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Fill: Medium Compact Black Clayey Sand with trace travel, concrete debris and wood pieces (3.0)		S-1	10 7 5	12			
96.0		Fill: Hard Dark Brown Silty Clay with black sand seams (5.5)	5	S-2	2 3 1	4	23.3		9000*
		Fill: Stiff Gray Silty Clay with occasional black sand seams (8.0)		S-3	1 1 2	3	28.9		4000*
91.0			10	S-4	2 3 1	4			
		Fill: Very Loose to Loose Black Sand with trace silt and gravel (14.5)							
86.0			15	S-5	1 1 1	2	29.1	95	1610
		Medium Blueish Gray Silty Clay with trace sand and gravel (18.0)							
81.0			20	S-6	9 8 7	15	22.3	102	2930
		Stiff Brown and Gray Silty Clay with trace sand and gravel (23.0)							
76.0			25	S-7	WOH/18"	---	31.0		300**
		Very Soft Gray Silty Clay with trace sand and gravel							
71.0			30	ST-1			28.4	92	440
				S-8	WOH/18"	---	28.0	107	340
66.0			35	S-9	WOH/18"	---	29.9	113	310

Total Depth: 105 ft
Drilling Date: August 9, 2016
Inspector: J. Clay, EIT
Contractor: BRAX Drilling, Inc.
Driller: A. Guzdzial

Drilling Method:
4-1/4 inch inside diameter hollow stem augers to 20 feet; 3-7/8 inch tri-cone mud rotary thereafter

Water Level Observation:
6 feet during drilling operations; none recorded upon completion due to mud rotary drilling method

Notes:
* Calibrated Hand Penetrometer
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with cement bentonite grout mix

Figure No. 1a

SOIL / PAVEMENT BORING 150990.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 9/2/16

Project Name: Detroit River Heavy Lift Dock - Phase II

Project Location: Jefferson Avenue
Detroit, Michigan

G2 Project No. 150990

Latitude: N/A Longitude: N/A

Soil Boring No. B-1

G2 CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 101.0 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
61.0		Very Soft Gray Silty Clay with trace sand and gravel *(continued)*	40	S-10	WOH/18"	---	25.5	124	420
56.0			45	S-11	WOH/18"	---	21.1	112	450
		47.0							
51.0		Soft Gray Silty Clay with trace sand and gravel	50	S-12	WOH/12" 1	---	20.5	117	700**
46.0			55	S-13	WOH/12" 2	---	22.1	118	600
41.0			60	S-14	1 2 1	3			
36.0			65	S-15	WOH/6" 1 2	3	23.8	116	750
31.0			70	S-16	1 1 1	2	27.1	109	910

Total Depth: 105 ft
Drilling Date: August 9, 2016
Inspector: J. Clay, EIT
Contractor: BRAX Drilling, Inc.
Driller: A. Guzdzial

Drilling Method:
4-1/4 inch inside diameter hollow stem augers to 20 feet; 3-7/8 inch tri-cone mud rotary thereafter

Water Level Observation:
6 feet during drilling operations; none recorded upon completion due to mud rotary drilling method

Notes:
* Calibrated Hand Penetrometer
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with cement bentonite grout mix

Figure No. 1b

SOIL / PAVEMENT BORING 150990.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 9/2/16

Project Name: Detroit River Heavy Lift Dock - Phase II

Project Location: Jefferson Avenue
Detroit, Michigan

G2 Project No. 150990

Latitude: N/A Longitude: N/A

Soil Boring No. B-1

G2 CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 101.0 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
26.0			75	S-17	WOH/6" 2 2	4	35.9	100	560
21.0		Soft Gray Silty Clay with trace sand and gravel *(continued)*	80	S-18	WOH/6" 2 2	4	23.8	113	570
16.0			85	S-19	4 3 4	7	34.1		
11.0		89.0	90	S-20	3 8 21	29			
		Medium Compact Gray Sandy Silt 92.0							
6.0			95	S-21	55 65	---			
1.0		Very Compact Gray Gravelly Sand with trace clay (Hardpan)	100	S-22	94 52	---			
-4.0		104.0 Highly Weathered Greenish Gray Shale 105.0	105	S-23	73 36 50	86			

Total Depth: 105 ft
Drilling Date: August 9, 2016
Inspector: J. Clay, EIT
Contractor: BRAX Drilling, Inc.
Driller: A. Guzdzial

Drilling Method:
4-1/4 inch inside diameter hollow stem augers to 20 feet; 3-7/8 inch tri-cone mud rotary thereafter

Water Level Observation:
6 feet during drilling operations; none recorded upon completion due to mud rotary drilling method

Notes:
* Calibrated Hand Penetrometer
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with cement bentonite grout mix

Figure No. 1c

SOIL / PAVEMENT BORING 150990.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 9/2/16

Project Name: Detroit River Heavy Lift Dock - Phase II

Project Location: Jefferson Avenue
Detroit, Michigan

G2 Project No. 150990

Latitude: N/A Longitude: N/A

Soil Boring No. B-2

G2 CONSULTING GROUP

SUBSURFACE PROFILE / SOIL SAMPLE DATA

GROUND SURFACE ELEVATION: 102.0 ft ±

ELEV. (ft)	PRO-FILE	SUBSURFACE PROFILE	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Fill: Medium Compact Black Sand with trace silt and clay with wood pieces and concrete debris		S-1	6 14 15	29			
97.0			5	S-2	6 10 12	22			
		6.0		S-3	6 5 5	10	24.9		1000*
92.0		Fill: Medium Brown Silty Clay with trace sand and gravel	10	S-4	4 6 5	11	25.7		1000*
		13.0							
87.0		Fill: Medium Greenish Gray Silty Clay with trace sand and gravel	15	S-5	2 1 2	3	21.4	115	1290
		18.0							
82.0		Medium Gray Silty Clay with trace sand and gravel	20	S-6	2 3 3	6	28.5	125	1500*
		23.0							
77.0		Very Soft to Soft Gray Silty Clay with trace sand and gravel	25	S-7	WOH/18"	---	33.9		200**
72.0			30	S-8	WOH/18"	---	27.1		200**
67.0			35	S-9	WOH/18"	---	36.9		300**

Total Depth: 100 ft
Drilling Date: August 10, 2016
Inspector:
Contractor: BRAX Drilling, Inc.
Driller: A. Guzdzial

Drilling Method:
4-1/4 inch continuous flight augers to 10 feet,
3-7/8 inch wash rotary thereafter

Water Level Observation:
6 feet during drilling operations; none recorded upon completion due to mud rotary drilling method

Notes:
* Calibrated Hand Penetrometer
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with cement bentonite grout mix

Figure No. 2a

SOIL / PAVEMENT BORING 150990.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 9/2/16

Project Name: Detroit River Heavy Lift Dock - Phase II

Project Location: Jefferson Avenue
Detroit, Michigan

G2 Project No. 150990

Latitude: N/A Longitude: N/A

Soil Boring No. B-2

CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 102.0 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
62.0			40	S-10	WOH/18"	---	25.5	96	380
57.0			45	S-11	1/18"	---	23.9		400**
52.0			50	S-12	1 1 1	2	23.3		300**
47.0		Very Soft to Soft Gray Silty Clay with trace sand and gravel *(continued)*	55	S-13	WOH/6" 1 1	2	22.2		300**
42.0			60	S-14	WOH/6" 1 2	3	26.6	112	760
37.0			65	S-15	1/18"	---	24.9		300**
32.0			70	S-16	WOH/6" 1 1	2	24.1		600**

Total Depth: 100 ft
Drilling Date: August 10, 2016
Inspector:
Contractor: BRAX Drilling, Inc.
Driller: A. Guzdzial

Drilling Method:
4-1/4 inch continuous flight augers to 10 feet,
3-7/8 inch wash rotary thereafter

Water Level Observation:
6 feet during drilling operations; none recorded upon completion due to mud rotary drilling method

Notes:
* Calibrated Hand Penetrometer
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with cement bentonite grout mix

Figure No. 2b

SOIL / PAVEMENT BORING 150990.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 9/2/16

Project Name: Detroit River Heavy Lift Dock - Phase II

Project Location: Jefferson Avenue
Detroit, Michigan

G2 Project No. 150990

Latitude: N/A Longitude: N/A

Soil Boring No. B-2

CONSULTING GROUP

SUBSURFACE PROFILE / SOIL SAMPLE DATA

GROUND SURFACE ELEVATION: 102.0 ft ±

ELEV. (ft)	PRO-FILE		DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
27.0			75	S-17	1 1 1	2	24.9		400**
22.0		Very Soft to Soft Gray Silty Clay with trace sand and gravel *(continued)*	80	S-18	WOH/6" 2 2	4	20.4	121	600
17.0			85	S-19	WOH/6" 1 2	3	20.8	120	520
		87.0							
12.0		Very Loose Gray Silt with trace sand and clay	90	S-20	2 2 1	3			
		92.0							
7.0			95	S-21	100/3"	---			
2.0		Weathered Gray Shale (Hardpan) 100.0	100	S-22	100/5"	---			
-3.0		End of Boring @ 100 ft	105						

Total Depth: 100 ft
Drilling Date: August 10, 2016
Inspector:
Contractor: BRAX Drilling, Inc.
Driller: A. Guzdzial

Drilling Method:
4-1/4 inch continuous flight augers to 10 feet,
3-7/8 inch wash rotary thereafter

Water Level Observation:
6 feet during drilling operations; none recorded upon completion due to mud rotary drilling method

Notes:
* Calibrated Hand Penetrometer
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with cement bentonite grout mix

Figure No. 2c

SOIL / PAVEMENT BORING 150990.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 9/2/16

Project Name: Detroit River Heavy Lift Dock - Phase II

Project Location: Jefferson Avenue
Detroit, Michigan

G2 Project No. 150990

Latitude: N/A Longitude: N/A

Soil Boring No. B-3

G2 CONSULTING GROUP

SUBSURFACE PROFILE / SOIL SAMPLE DATA

GROUND SURFACE ELEVATION: 102.0 ft ±

ELEV. (ft)	PRO-FILE		DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
				S-1	7 3 4	7			
97.0			5	S-2	4 4 4	8			
		Fill: Very Loose to Loose Black Sand with wood pieces, brick debris, and concrete debris		S-3	1 3 4	7			
92.0			10	S-4	1 2 2	4			
		12.0							
87.0		Stiff Brown and Gray Silty Clay with trace sand and gravel	15	S-5	9 5 6	11	29.3	97	3060
		16.0							
82.0			20	S-6	3 4 4	8	33.8		400**
77.0			25	S-7	WOH/18"	---	41.0		300**
72.0		Very Soft to Soft Gray Silty Clay with trace sand and gravel	30	S-8	WOH/18"	---	29.7		300**
67.0			35	ST-1			42.7	95	680

Total Depth: 100 ft
Drilling Date: August 11, 2016
Inspector:
Contractor: BRAX Drilling, Inc.
Driller: A. Guzdzial

Drilling Method:
4-1/4 inch continuous flight augers to 10 feet,
3-7/8 inch wash rotary thereafter

Water Level Observation:
6 feet during drilling operations; none recorded upon completion due to mud rotary drilling method

Notes:
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with cement bentonite grout mix

Figure No. 3a

SOIL / PAVEMENT BORING 150990.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 9/2/16

Project Name: Detroit River Heavy Lift Dock - Phase II

Project Location: Jefferson Avenue
Detroit, Michigan

G2 Project No. 150990

Latitude: N/A Longitude: N/A

Soil Boring No. B-3

G2 CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 102.0 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
				S-9	WOH/12" 1	---	35.2		400**
62.0			40	S-10	WOH/18"	---	44.8		400**
57.0			45	S-11	WOH/18"	---	22.8		300**
52.0			50	S-12	WOH/12" 1	---	22.8		400**
47.0		Very Soft to Soft Gray Silty Clay with trace sand and gravel *(continued)*	55	S-13	WOH/12" 1	---	17.9		400**
42.0			60	S-14	WOH/12" 1	---	21.8		400**
37.0			65	S-15	WOH/12" 1	---	23.3	119	660
32.0			70	S-16	WOH/18"	---	22.4		600**

Total Depth: 100 ft
Drilling Date: August 11, 2016
Inspector:
Contractor: BRAX Drilling, Inc.
Driller: A. Guzdzial

Drilling Method:
4-1/4 inch continuous flight augers to 10 feet,
3-7/8 inch wash rotary thereafter

Water Level Observation:
6 feet during drilling operations; none recorded upon completion due to mud rotary drilling method

Notes:
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with cement bentonite grout mix

Figure No. 3b

SOIL / PAVEMENT BORING 150990.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 9/2/16

Project Name: Detroit River Heavy Lift Dock - Phase II

Project Location: Jefferson Avenue
Detroit, Michigan

G2 Project No. 150990

Latitude: N/A Longitude: N/A

Soil Boring No. B-3

G2 CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 102.0 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
27.0		Very Soft to Soft Gray Silty Clay with trace sand and gravel *(continued)*	75	S-17	WOH/6" 1 1	2	24.6	118	790
22.0			80	S-18	WOH/12" 1	---	24.8		300**
17.0			85	S-19	WOH/12" 1	---	20.3	127	400
		87.0							
12.0		Loose Gray Silt with trace sand and clay	90	S-20	2 2 3	5			
		92.0							
7.0		Weathered Gray Shale (Hardpan)	95	S-21	72 50/2"	---			
2.0		100.0	100	S-22	100/2"	---			
-3.0		End of Boring @ 100 ft	105						

Total Depth: 100 ft
Drilling Date: August 11, 2016
Inspector:
Contractor: BRAX Drilling, Inc.
Driller: A. Guzdzial

Drilling Method:
4-1/4 inch continuous flight augers to 10 feet,
3-7/8 inch wash rotary thereafter

Water Level Observation:
6 feet during drilling operations; none recorded upon completion due to mud rotary drilling method

Notes:
** Torvane

Excavation Backfilling Procedure:
Borehole backfilled with cement bentonite grout mix

Figure No. 3c

SOIL / PAVEMENT BORING 150990.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 9/2/16

Project Name: Detroit River Heavy Lift Dock - Phase II

Project Location: Jefferson Avenue
Detroit, Michigan

G2 Project No. 150990

Latitude: N/A Longitude: N/A

Soil Boring No. B-4

G2 CONSULTING GROUP

SUBSURFACE PROFILE / SOIL SAMPLE DATA

GROUND SURFACE ELEVATION: 101.0 ft ±

ELEV. (ft)	PRO-FILE		DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Fill: Medium Compact Black Sand and Gravel with wood pieces, brick debris, coal and trace clay		S-1	2 9 9	18			
		3.0							
96.0			5	S-2	1 1 1	2			
				S-3	1 3 2	5			
91.0		Fill: Very Loose to Loose Black Sand with wood pieces, brick debris, slag pieces	10	S-4	WOH/6" 1 1	2			
86.0			15	S-5	2 2 2	4			
		17.0							
81.0			20	S-6	WOH/18"	---	41.5		300**
76.0			25	S-7	WOH/18"	---	45.4	80	200**
71.0		Very Soft to Soft Gray Silty Clay with trace sand and gravel	30	S-8	WOH/18"	---	32.1		300**
66.0			35	S-9	WOH/18"	---	27.8		400**

Total Depth: 50 ft
Drilling Date: August 12, 2016
Inspector:
Contractor: BRAX Drilling, Inc.
Driller: A. Guzdzial

Drilling Method:
4-1/4 inch continuous flight augers to 10 feet,
3-7/8 inch wash rotary thereafter

Water Level Observation:
6 feet during drilling operations; none recorded upon completion due to mud rotary drilling method

Notes:
** Torvane
*** Vane

Excavation Backfilling Procedure:
Borehole backfilled with cement bentonite grout mix

Figure No. 4a

SOIL / PAVEMENT BORING 150990.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 9/2/16

Project Name: Detroit River Heavy Lift Dock - Phase II

Project Location: Jefferson Avenue
Detroit, Michigan

G2 Project No. 150990

Latitude: N/A Longitude: N/A

Soil Boring No. B-4

G2 CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 101.0 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
61.0			40	S-10	WOH/18"	---	24.6	121	560***
		Very Soft to Soft Gray Silty Clay with trace sand and gravel *(continued)*							
56.0			45	S-11	WOH/18"	---	35.5	105	370
51.0		50.0	50	S-12	WOH/18"	---	25.4		820***
		End of Boring @ 50 ft							
46.0			55						
41.0			60						
36.0			65						
31.0			70						

Total Depth: 50 ft
Drilling Date: August 12, 2016
Inspector:
Contractor: BRAX Drilling, Inc.
Driller: A. Guzdzial

Drilling Method:
4-1/4 inch continuous flight augers to 10 feet,
3-7/8 inch wash rotary thereafter

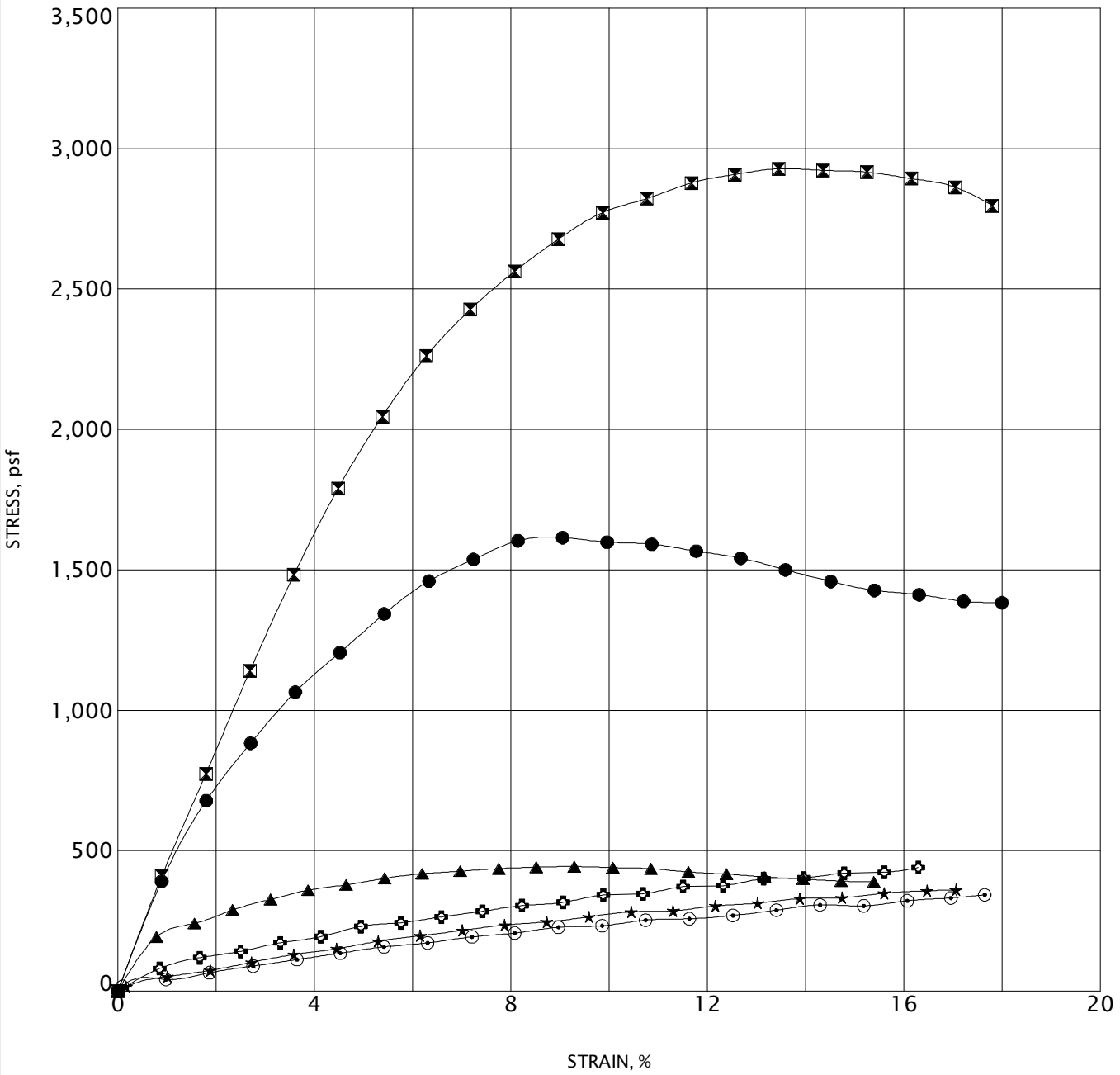
Water Level Observation:
6 feet during drilling operations; none recorded upon completion due to mud rotary drilling method

Notes:
** Torvane
*** Vane

Excavation Backfilling Procedure:
Borehole backfilled with cement bentonite grout mix

Figure No. 4b

SOIL / PAVEMENT BORING 150990.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 9/2/16



Specimen			Classification	MC%	γ_d	UC
●	B-1	S-5	Blueish Gray Silty Clay	29	95	1610
⊠	B-1	S-6	Brown and Gray Silty Clay	22	102	2930
▲	B-1	ST-1	Gray Silty Clay	28	92	440
★	B-1	S-8	Gray Silty Clay	28	107	340
⊙	B-1	S-9	Gray Silty Clay	30	113	310
✿	B-1	S-10	Gray Silty Clay	25	124	420

CONSULTING GROUP

UNCONFINED COMPRESSIVE STRENGTH TEST

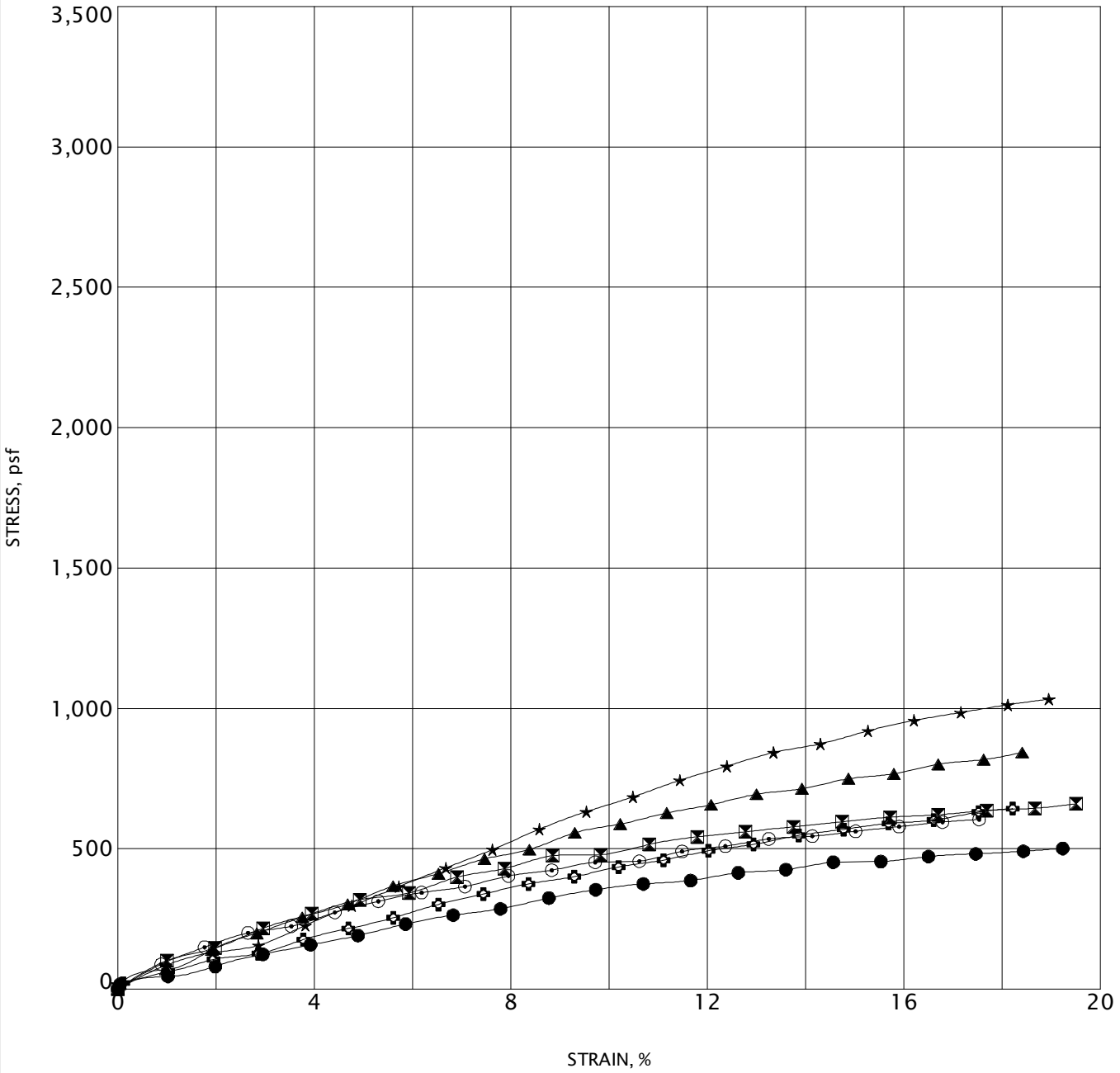
Project Name: Detroit River Heavy Lift Dock - Phase II

Project Location: Jefferson Avenue
Detroit, Michigan

G2 Project No.: 150990

Figure No. 5

US_UNCONFINED 150990.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 9/2/16



Specimen			Classification	MC%	γ_d	UC
●	B-1	S-11	Gray Silty Clay	21	112	450
⧗	B-1	S-13	Gray Silty Clay	22	118	600
▲	B-1	S-15	Gray Silty Clay	24	116	750
★	B-1	S-16	Gray Silty Clay	27	109	910
⊙	B-1	S-17	Gray Silty Clay	36	100	560
✿	B-1	S-18	Gray Silty Clay	24	113	570

CONSULTING GROUP

UNCONFINED COMPRESSIVE STRENGTH TEST

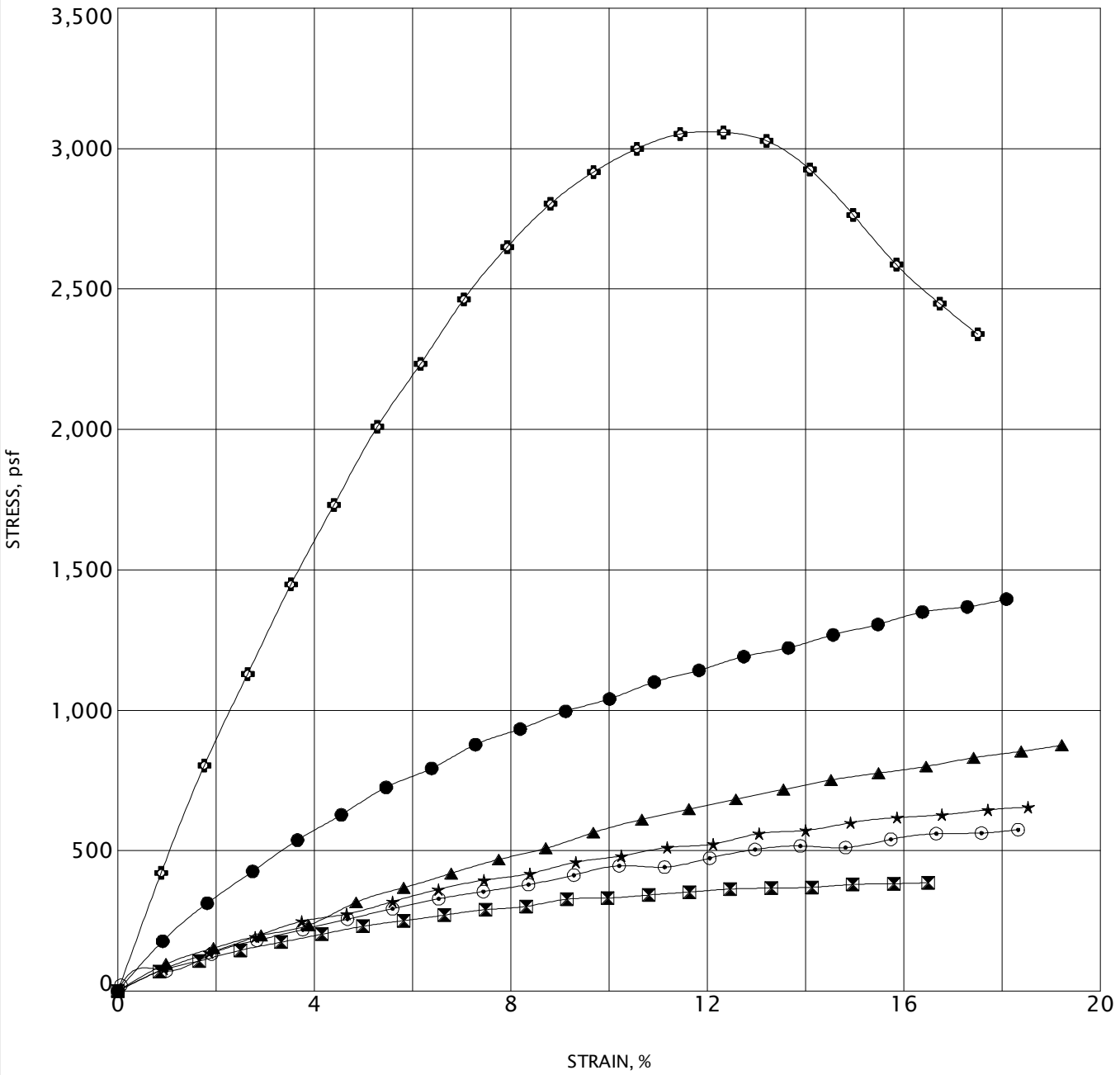
Project Name: Detroit River Heavy Lift Dock - Phase II

Project Location: Jefferson Avenue
Detroit, Michigan

G2 Project No.: 150990

Figure No. 6

US_UNCONFINED 150990.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 9/2/16



Specimen			Classification	MC%	γ_d	UC
●	B-2	S-5	Greenish Gray Silty Clay	21	115	1290
⊠	B-2	S-10	Gray Silty Clay	26	96	380
▲	B-2	S-14	Gray Silty Clay	27	112	760
★	B-2	S-18	Gray Silty Clay	20	121	600
⊙	B-2	S-19	Gray Silty Clay	21	120	520
✿	B-3	S-5	Brown and Gray Silty Clay	29	97	3060

G2 CONSULTING GROUP

UNCONFINED COMPRESSIVE STRENGTH TEST

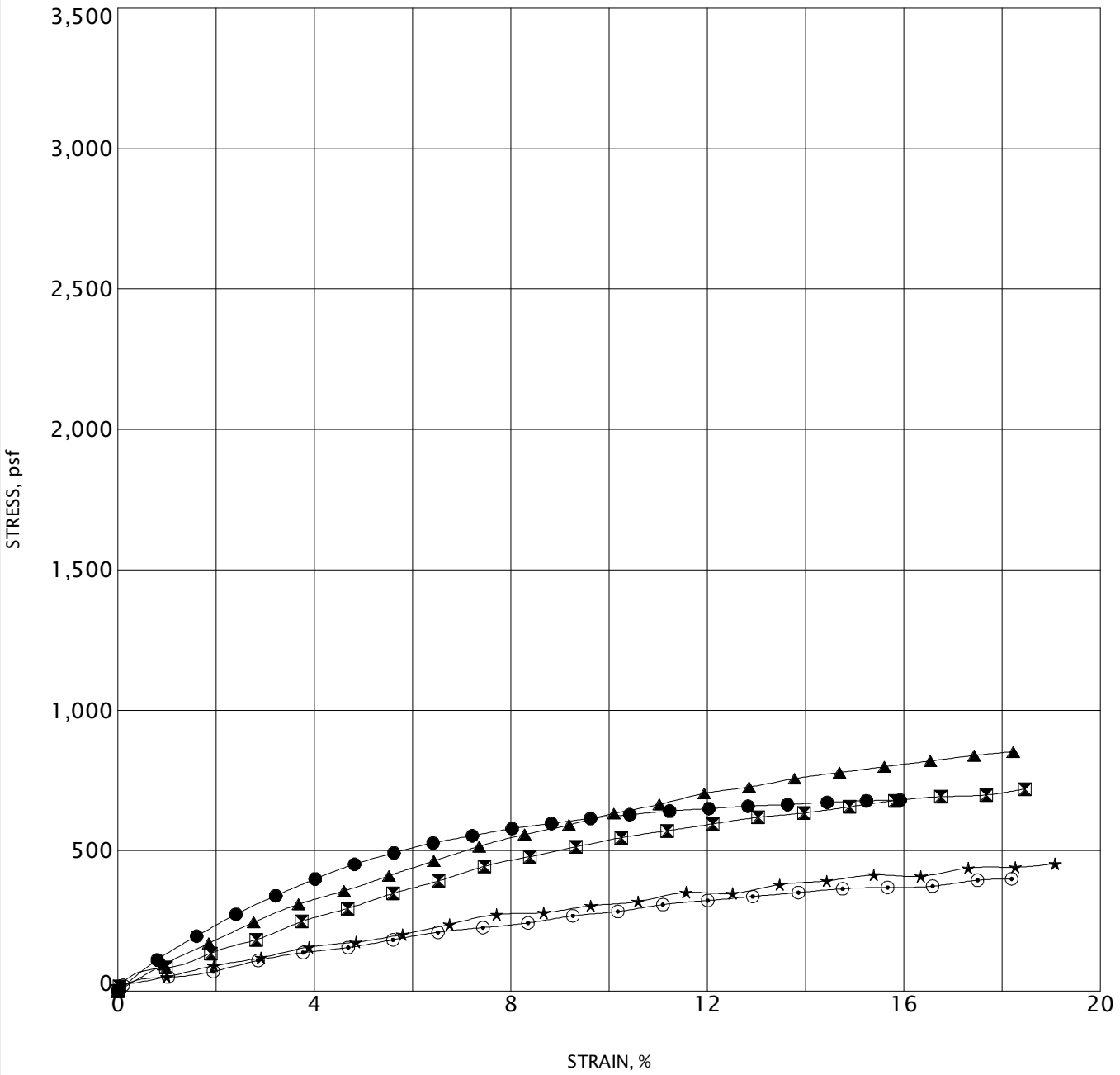
Project Name: Detroit River Heavy Lift Dock - Phase II

Project Location: Jefferson Avenue
Detroit, Michigan

G2 Project No.: 150990

Figure No. 7

US_UNCONFINED 150990.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 9/2/16



Specimen			Classification	MC%	γ_d	UC
●	B-3	ST-1	Gray Silty Clay	43	95	680
⊠	B-3	S-15	Gray Silty Clay	23	119	660
▲	B-3	S-17	Gray Silty Clay	25	118	790
★	B-3	S-19	Gray Silty Clay	20	127	400
⊙	B-4	S-11	Gray Silty Clay	35	105	370

G2 CONSULTING GROUP

UNCONFINED COMPRESSIVE STRENGTH TEST

Project Name: Detroit River Heavy Lift Dock - Phase II

Project Location: Jefferson Avenue
Detroit, Michigan

G2 Project No.: 150990

Figure No. 8

US_UNCONFINED 150990.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 9/2/16

GENERAL NOTES TERMINOLOGY

Unless otherwise noted, all terms herein refer to the Standard Definitions presented in ASTM 653.

PARTICLE SIZE

Boulders		- greater than 12 inches
Cobbles		- 3 inches to 12 inches
Gravel	- Coarse	- 3/4 inches to 3 inches
	- Fine	- No. 4 to 3/4 inches
Sand	- Coarse	- No. 10 to No. 4
	- Medium	- No. 40 to No. 10
	- Fine	- No. 200 to No. 40
Silt		- 0.005mm to 0.074mm
Clay		- Less than 0.005mm

CLASSIFICATION

The major soil constituent is the principal noun, i.e. clay, silt, sand, gravel. The second major soil constituent and other minor constituents are reported as follows:

Second Major Constituent (percent by weight)	Minor Constituent (percent by weight)
Trace - 1 to 12%	Trace - 1 to 12%
Adjective - 12 to 35%	Little - 12 to 23%
And - over 35%	Some - 23 to 33%

COHESIVE SOILS

If clay content is sufficient so that clay dominates soil properties, clay becomes the principal noun with the other major soil constituent as modifier, i.e. sandy clay. Other minor soil constituents may be included in accordance with the classification breakdown for cohesionless soils, i.e. silty clay, trace sand, little gravel.

Consistency	Unconfined Compressive Strength (psf)	Approximate Range of (N)
Very Soft	Below 500	0 - 2
Soft	500 - 1,000	3 - 4
Medium	1,000 - 2,000	5 - 8
Stiff	2,000 - 4,000	9 - 15
Very Stiff	4,000 - 8,000	16 - 30
Hard	8,000 - 16,000	31 - 50
Very Hard	Over 16,000	Over 50

Consistency of cohesive soils is based upon an evaluation of the observed resistance to deformation under load and not upon the Standard Penetration Resistance (N).

COHESIONLESS SOILS

Density Classification	Relative Density %	Approximate Range of (N)
Very Loose	0 - 15	0 - 4
Loose	16 - 35	5 - 10
Medium Compact	36 - 65	11 - 30
Compact	66 - 85	31 - 50
Very Compact	86 - 100	Over 50

Relative Density of cohesionless soils is based upon the evaluation of the Standard Penetration Resistance (N), modified as required for depth effects, sampling effects, etc.

SAMPLE DESIGNATIONS

AS - Auger Sample – Cuttings directly from auger flight
BS - Bottle or Bag Samples
S - Split Spoon Sample - ASTM D 1586
LS - Liner Sample with liner insert 3 inches in length
ST - Shelby Tube sample - 3 inch diameter unless otherwise noted
PS - Piston Sample - 3 inch diameter unless otherwise noted
RC - Rock Core - NX core unless otherwise noted

STANDARD PENETRATION TEST (ASTM D 1586) - A 2.0 inch outside-diameter, 1-3/8 inch inside-diameter split barrel sampler is driven into undisturbed soil by means of a 140-pound weight falling freely through a vertical distance of 30 inches. The sampler is normally driven three successive 6-inch increments. The total number of blows required for the final 12 inches of penetration is the Standard Penetration Resistance (N).

CLASSIFICATION OF ROCK STRATA

Rock shall be described in accordance with the following items of classification:

Type Shale, sandstone, limestone, gneiss, etc.

Jointing Solid, broken (horizontal), fractured (vertical or inclined), weathered, disintegrated, seamy, etc. Note any significant features such as iron stain, classification, slickensides, clay filling, etc.

Color Gray, yellow, brown, black, etc.

Percent Recovery Equals length of core recovered divided by length of drill run.

Hardness Very weak, moderately weak, moderately strong, strong, very strong.

Very Weak	Can be scratched with thumbnail or plastic.
Moderately Weak	Can be scratched with copper penny, but not with thumbnail or plastic.
Moderately Strong	Can be scratched by steel (knife, screwdriver, nail, etc.), but not with penny, thumbnail or plastic.
Strong	Can be scratched only with considerable pressure on steel edge.

"Scratched" means a permanent impression left after core or rock surface is brushed or rubbed.

Weathering Completely Weathered, Highly Weathered, Moderately Weathered, Slightly Weathered, Faintly Weathered, Fresh.

Completely Weathered	All rock material is decomposed and/or disintegrated to soil. The original mass structure is still largely intact.
Highly Weathered	More than half of the rock material is decomposed and/or disintegrated to a soil. Fresh or discolored rock is present either as a discontinuous framework or as corestones.
Moderately Weathered	Less than half of the rock material is decomposed and/or disintegrated to a soil. Fresh or discolored rock is present either as a discontinuous framework or as corestones.
Slightly Weathered	Discoloration indicates weathering of rock material and discontinuity surfaces. All the rock material may be discolored by weathering and may be somewhat weaker than in its fresh condition.
Faintly Weathered	Discoloration on major discontinuity surfaces.
Fresh	No visible sign of rock material weathering.

Rock Quality Determination (RQD) Length of core unbroken by natural joints in pieces greater than 4 inches in length divided by length of core run.

An example of a rock description is as follows: Moderately Weak Gray Highly Weathered Limestone.

March 20, 2020

Mr. Steve Erickson
Revere Dock LLC
3128 Three Mile Road NW
Grand Rapids, Michigan 49534

RE: March 17, 2020 Flight and Status Report
Revere Dock Shoreline Evaluation
5851 West Jefferson Avenue
City of Detroit, Wayne County, Michigan
G2 Project No. 193662

Dear Mr. Erickson:

The purpose of this letter is to provide a status report of the observed site conditions at the above referenced project site. Subsequent to reported deep seated rotational slope movements at the project site, we have conducted Unmanned Aerial Vehicle (UAV) operations of the property to observe and document visual conditions of the site. These operations capture images and these data were used to prepare topographic information. Based on review of the data we collected, it appears that site contours have not deviated much and the surface of the ponded area within the reported failure continues to fluctuate somewhat.

Flight Date	River Elevation at USGS Fort Wayne Station
December 13, 2019	+/- 575.2 feet (NOAA Fort Wayne IGLD 85)
January 17, 2020	+/- 576.0 feet (NOAA Fort Wayne IGLD 85)
January 21, 2020	+/- 575.5 feet (NOAA Fort Wayne IGLD 85)
February 3, 2020	+/- 575.7 feet (NOAA Fort Wayne IGLD 85)
February 12, 2020	+/- 575.7 feet (NOAA Fort Wayne IGLD 85)
February 19, 2020	+/- 575.5 feet (NOAA Fort Wayne IGLD 85)
February 28, 2020	+/- 575.5 feet (NOAA Fort Wayne IGLD 85)
March 5, 2020	+/- 575.5 feet (NOAA Fort Wayne IGLD 85)
March 11, 2020	+/- 575.5 feet (NOAA Fort Wayne IGLD 85)
March 17, 2020	+/- 575.5 feet (NOAA Fort Wayne IGLD 85)

For the purpose of this report, the site is divided into two areas; The Disturbed Zone where ponded area is visible, and the Undisturbed Zone located downstream from the Disturbed Zone. Review of Plates 1 through 6 show the contour maps of the project site in the near vicinity of the Detroit River shoreline. In the Disturbed Zone, a ponded area is identified and is located about 100 feet landward of the Detroit River shoreline. We have also highlighted the topographic lines representing Elevations 576, 580, and 585. Further, we have simplified the presentation by indicating the shoreline to be at Elevation 576.

Based on analysis of the Ponded Area, our calculations indicate the following:

Flight Date	Approximate Surface Area of Water in Failure Dep
December 13, 2019	+/- 16,830 sq. ft.
January 17, 2020	+/- 16,381 sq. ft.
January 21, 2020	+/- 16,160 sq. ft.
February 3, 2020	+/- 16,004 sq. ft.
February 12, 2020	+/- 16,180 sq. ft.
February 19, 2020	+/- 15,370 sq. ft.
February 28, 2020	+/- 10,025 sq. ft.
March 5, 2020	+/- 10,240 sq. ft.
March 11, 2020	+/- 10,000 sq. ft.
March 17, 2020	+/- 10,000 sq. ft.

Based on this information, we do not detect any large-scale ground surface movements on site.

We hope the information contained in this letter is sufficient for your present needs. If you have questions of require additional information, please contact us.

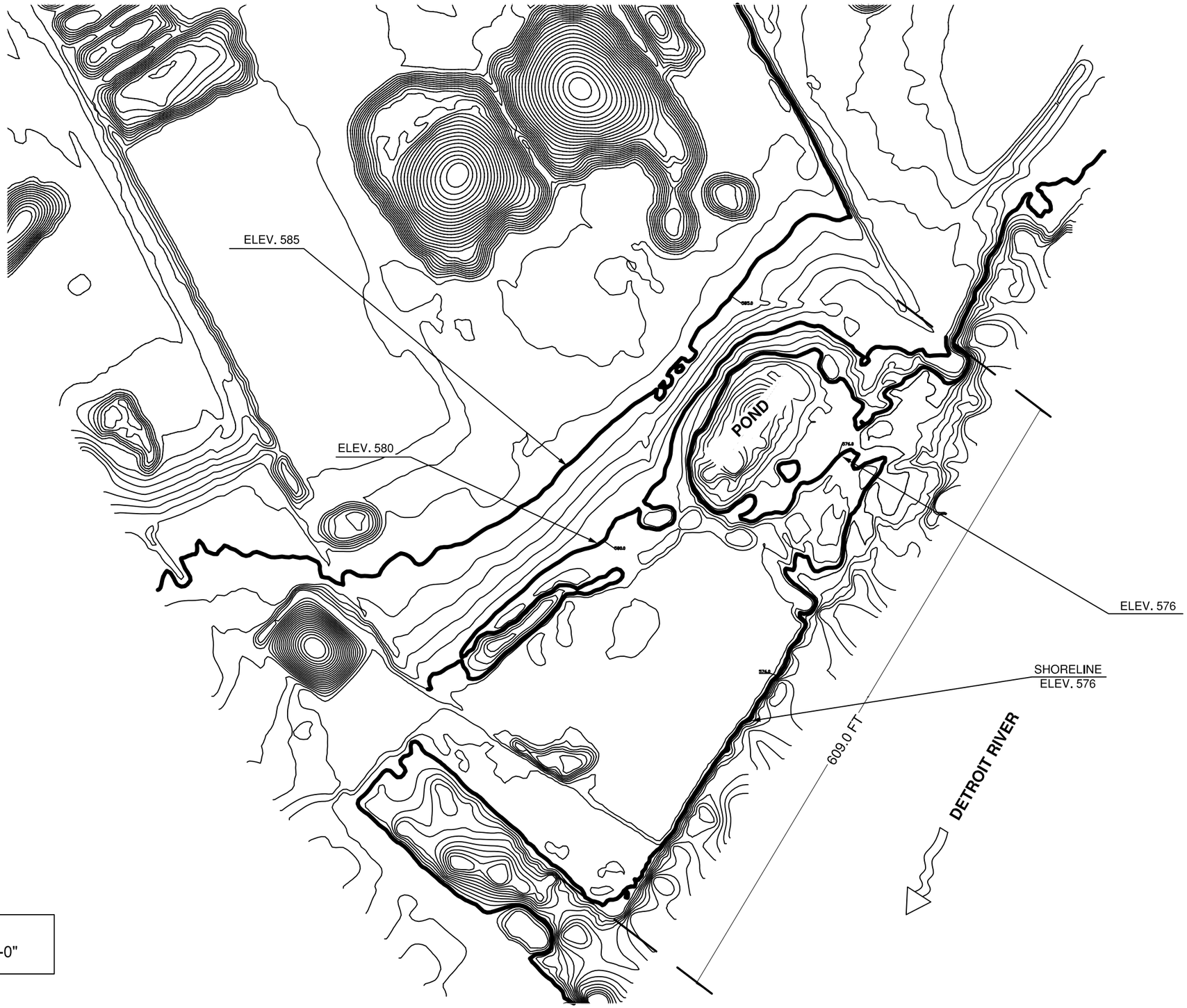
Sincerely,

G2 Consulting Group

Zahraa Roudan
Staff Engineer

Mark S. Stapleton, P.E.
Associate / Project Manager

Encl.



N

12/13/2019
SCALE: 1/8" = 1'-0"

CONSULTING GROUP
1350 Eisenhower Place
Ann Arbor, Michigan 48108
office (734) 390-9330
fax (734) 390-9331

PROJECT NO.: 193662

DATE: 02-14-2020

DRAWN BY: ZR

CHECKED BY: MSS

No.:	REVISION DESCRIPTION	DATE:

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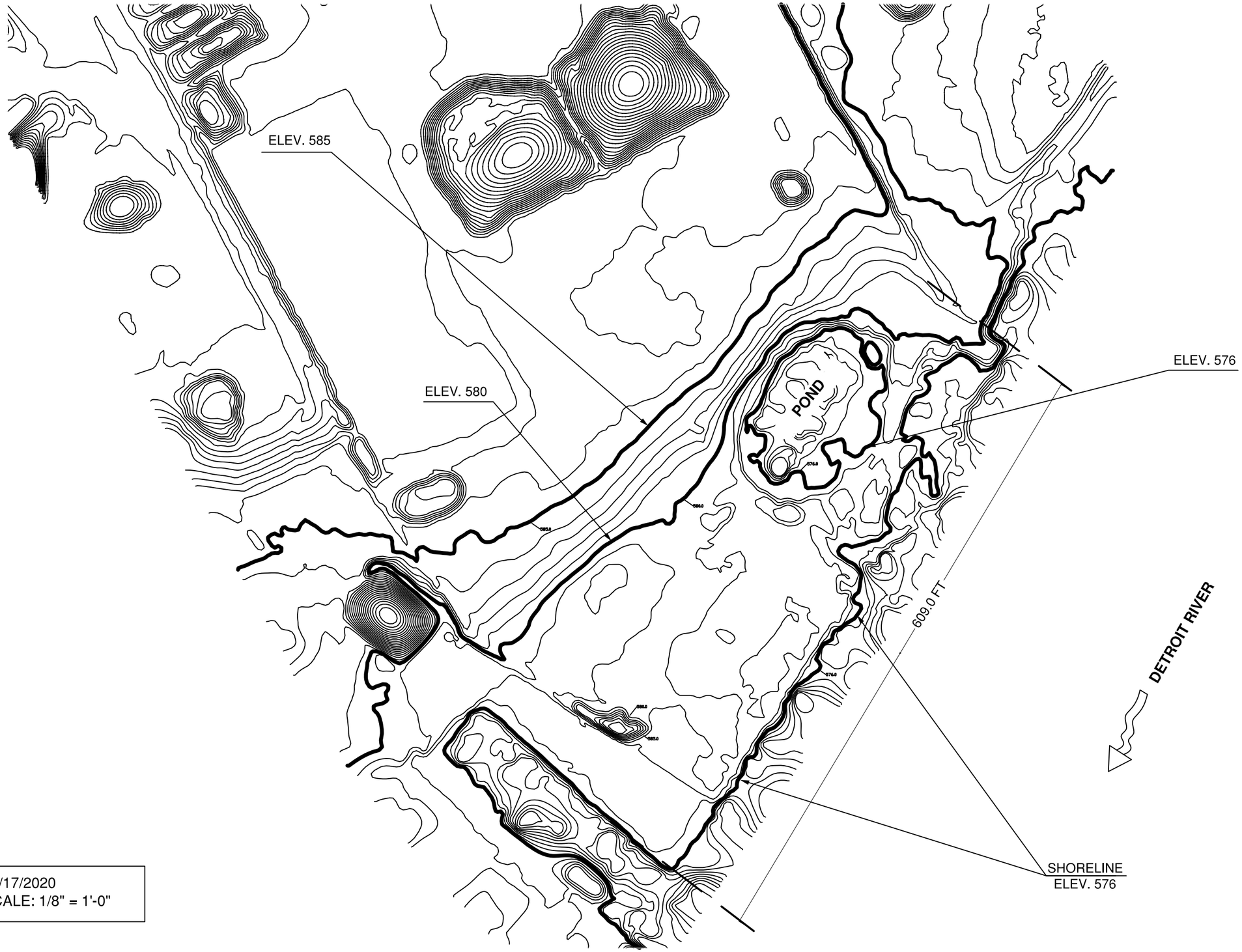
PROJECT NAME:
REVERE DOCK, LLC

ADDRESS:
5851 W. JEFFERSON AVE.
DETROIT, MICHIGAN

SHEET TITLE
CONTOUR MAP
12/13/2019

PLATE NO.
1



N

01/17/2020
SCALE: 1/8" = 1'-0"

CONSULTING GROUP
1350 Eisenhower Place
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office (734) 390-9330
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REVERE DOCK, LLC

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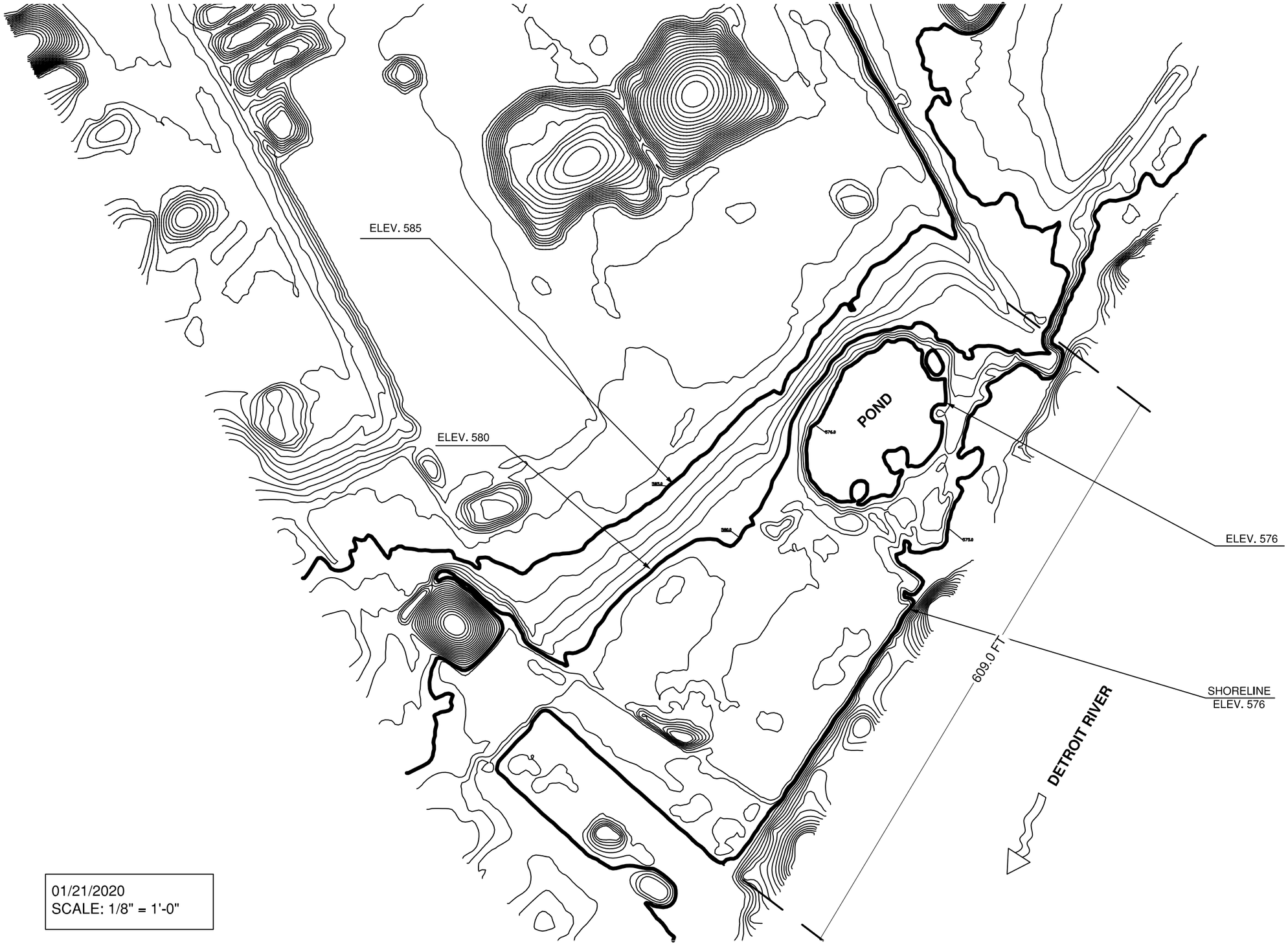
DETROIT, MICHIGAN

SHEET TITLE
CONTOUR MAP
1/17/2020

PLATE NO.
2



01/21/2020
SCALE: 1/8" = 1'-0"

CONSULTING GROUP
1350 Eisenhower Place
Ann Arbor, Michigan 48108
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fax (734) 390-9331

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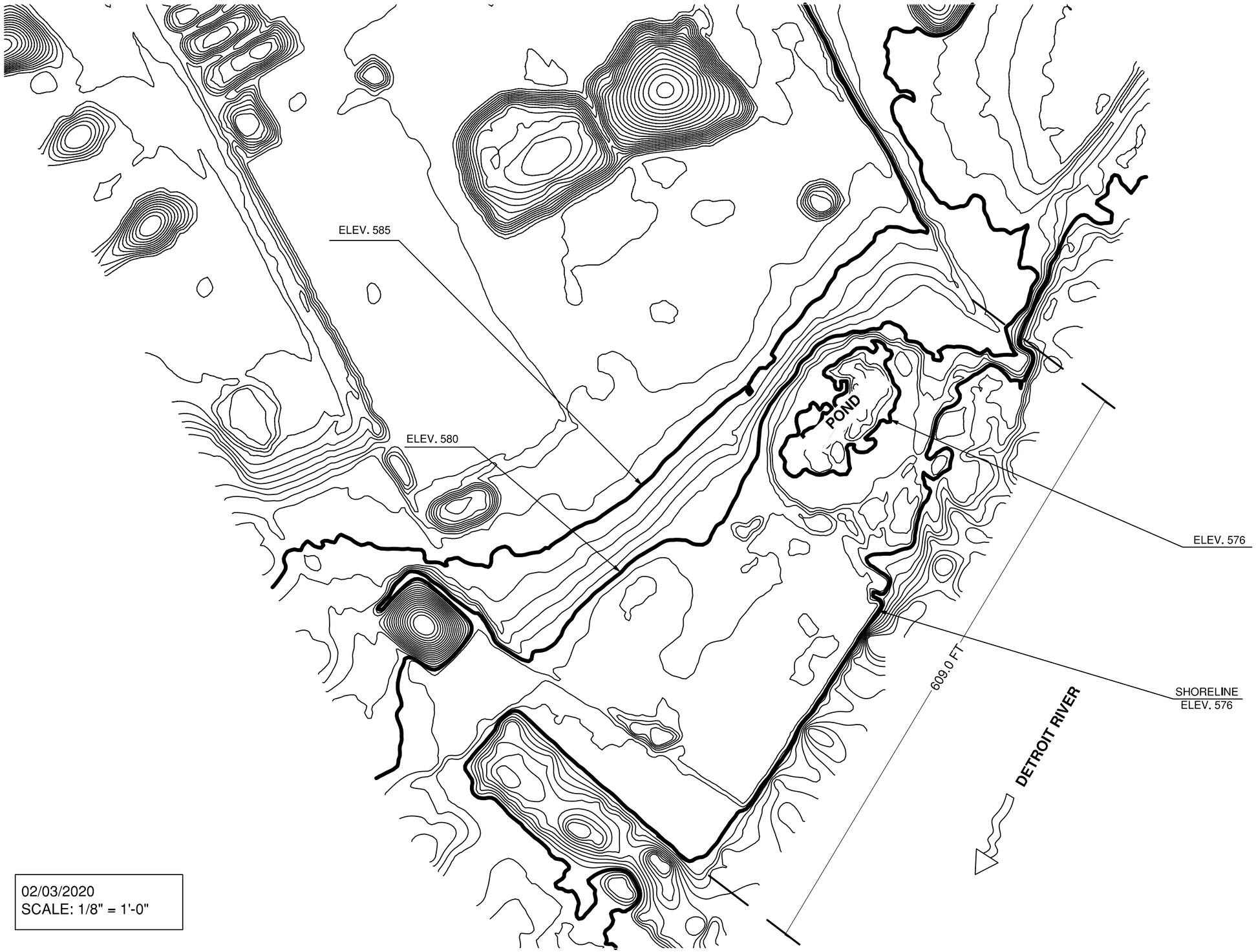
REVERE DOCK, LLC

ADDRESS:
5851 W. JEFFERSON AVE.
DETROIT, MICHIGAN

SHEET TITLE
CONTOUR MAP
1/21/2020

PLATE NO.
3



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02/03/2020
SCALE: 1/8" = 1'-0"

CONSULTING GROUP

1350 Eisenhower Place
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office (734) 390-9330
fax (734) 390-9331

PROJECT NO.: 193662

DATE: 02-14-2020

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ADDRESS:
5851 W. JEFFERSON AVE.
DETROIT, MICHIGAN

SHEET TITLE
CONTOUR MAP
02/03/2020

PLATE NO.
4

02/12/2020
SCALE: 1/8" = 1'-0"

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1350 Eisenhower Place
Ann Arbor, Michigan 48108
office (734) 390-9330
fax (734) 390-9331

PROJECT NO.: 193662

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ADDRESS:
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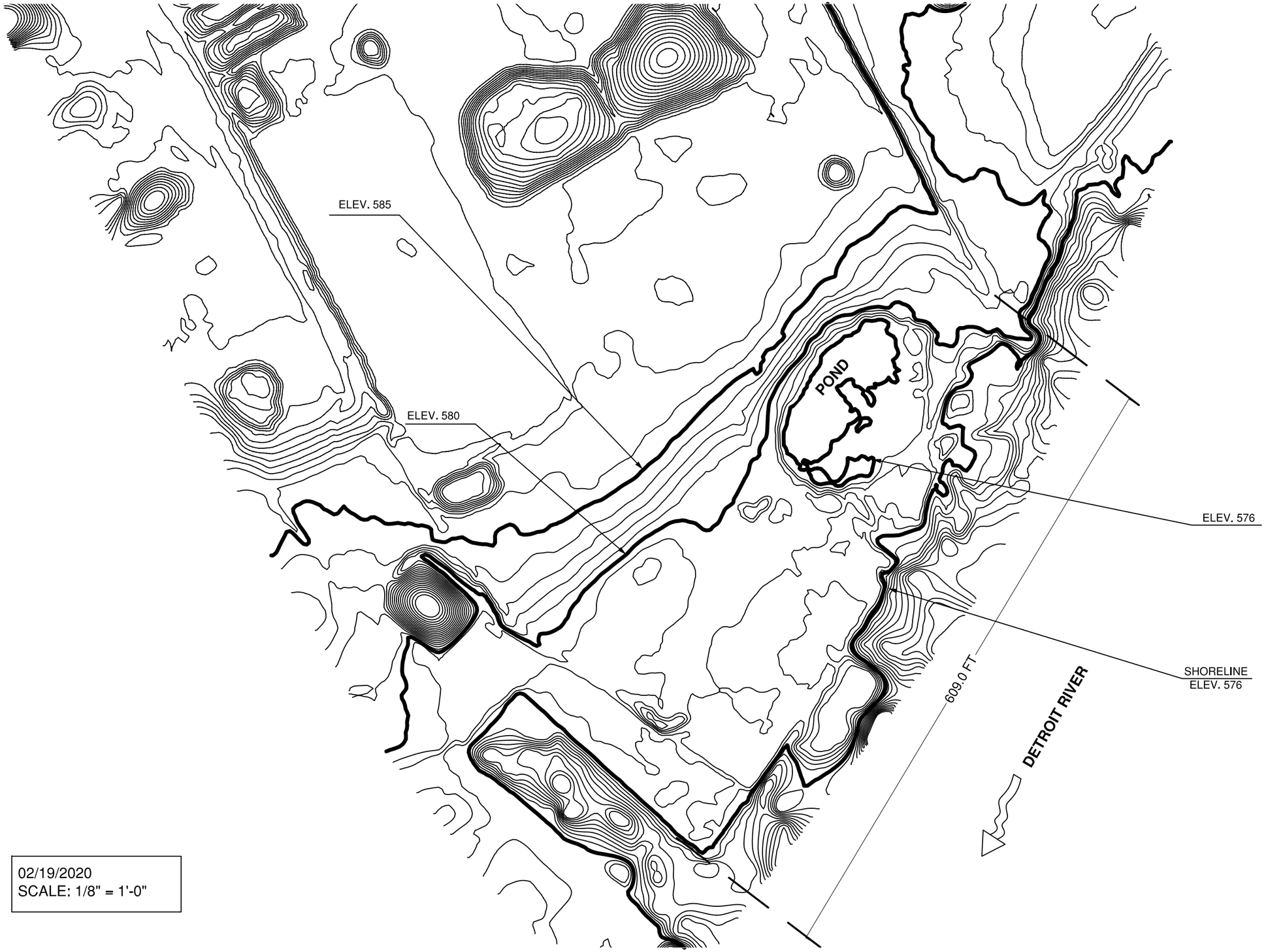
DETROIT, MICHIGAN

SHEET TITLE
CONTOUR MAP
02/12/2020

PLATE NO.
5



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02/19/2020
SCALE: 1/8" = 1'-0"

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1350 Eisenhower Place
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office (734) 390-9330
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PROJECT NO.: 193662

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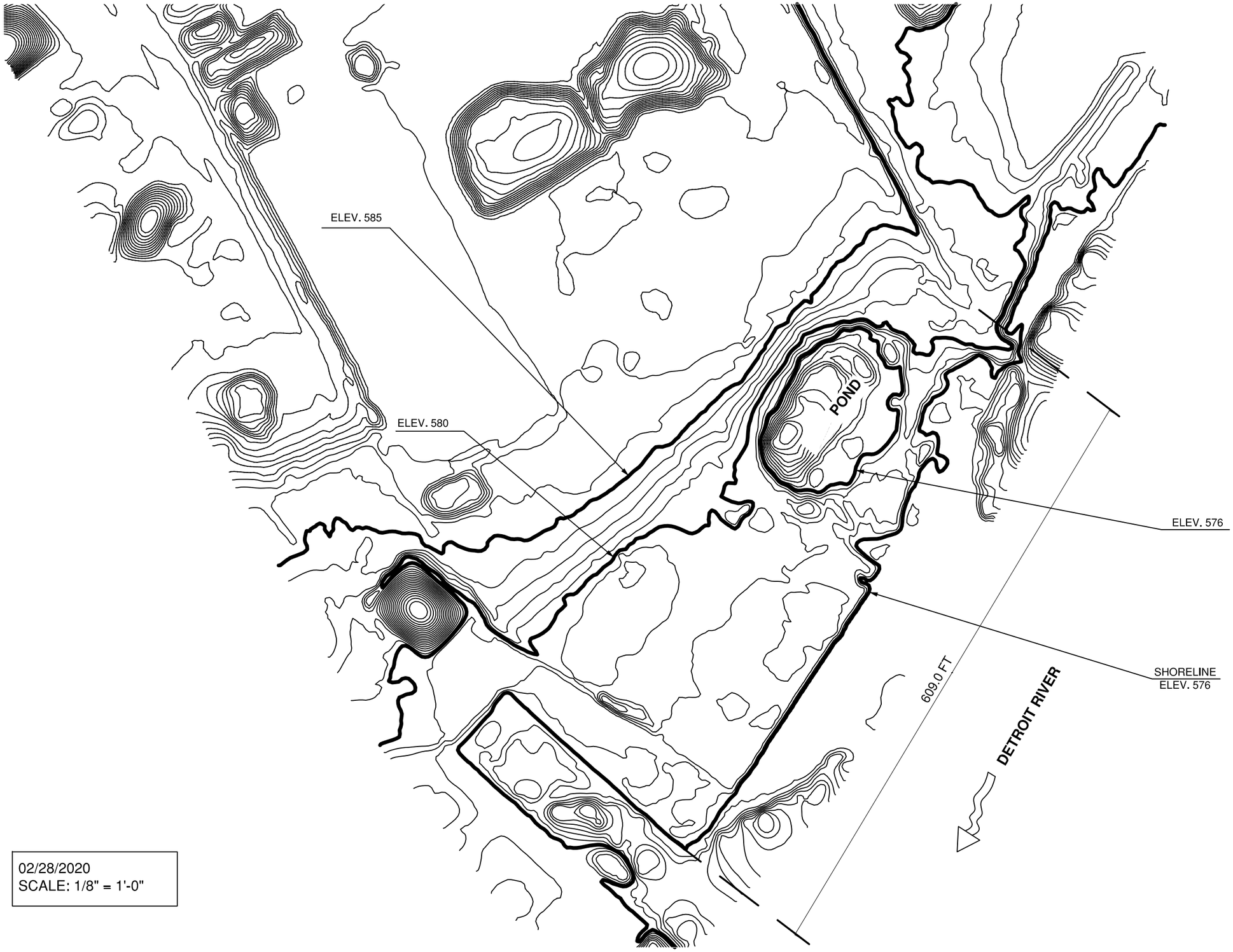
ADDRESS:
5851 W. JEFFERSON AVE.
DETROIT, MICHIGAN

SHEET TITLE
CONTOUR MAP
02/19/2020

PLATE NO.
6



02/28/2020
SCALE: 1/8" = 1'-0"

CONSULTING GROUP
1350 Eisenhower Place
Ann Arbor, Michigan 48108
office (734) 390-9330
fax (734) 390-9331

PROJECT NO.: 193662

DATE: 03-09-2020

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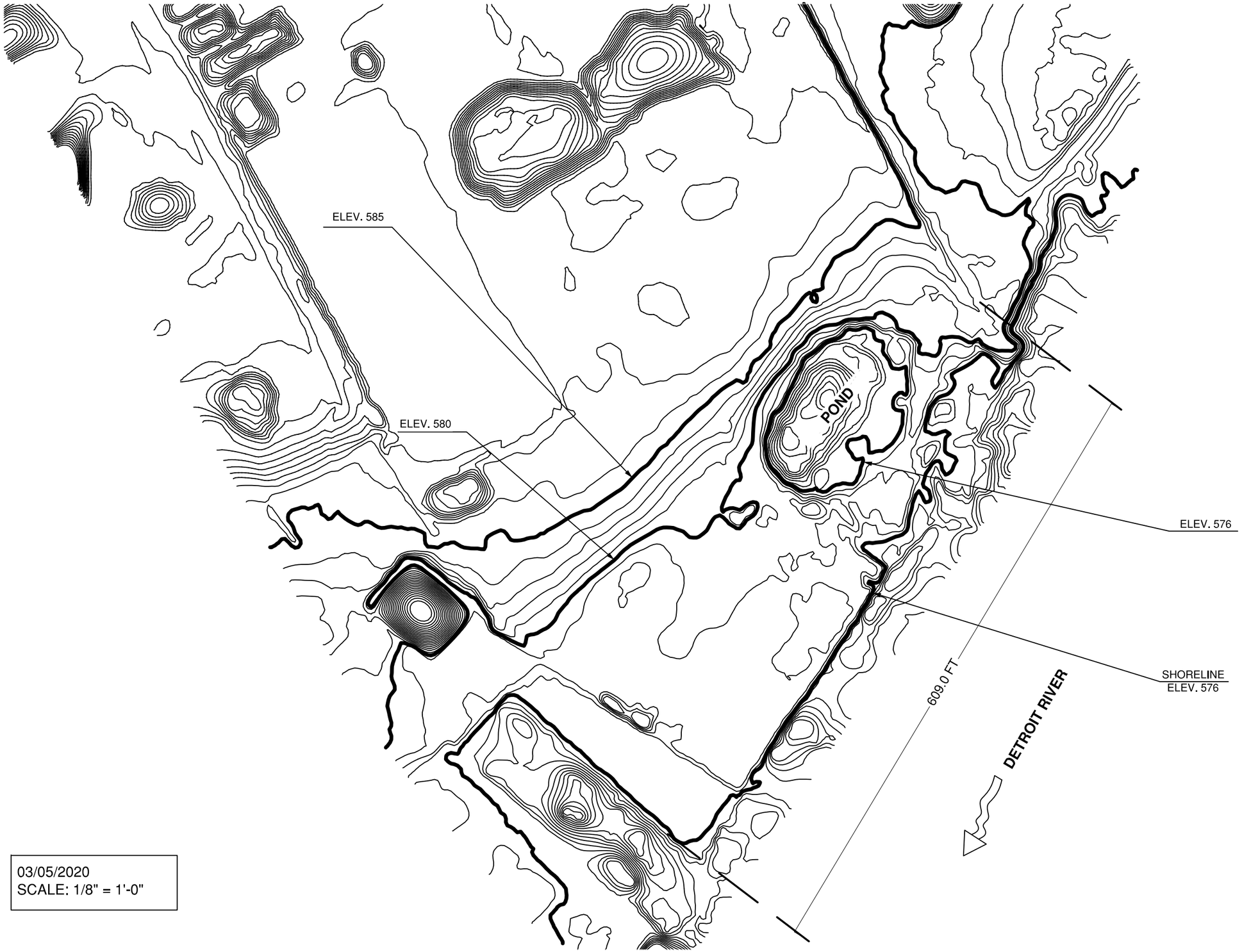
DETROIT, MICHIGAN

SHEET TITLE
CONTOUR MAP
02/28/2020

PLATE NO.
7



03/05/2020
SCALE: 1/8" = 1'-0"

CONSULTING GROUP
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office (734) 390-9330
fax (734) 390-9331

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SHEET TITLE
CONTOUR MAP
03/05/2020

PLATE NO.
8

03/11/2020
SCALE: 1/8" = 1'-0"

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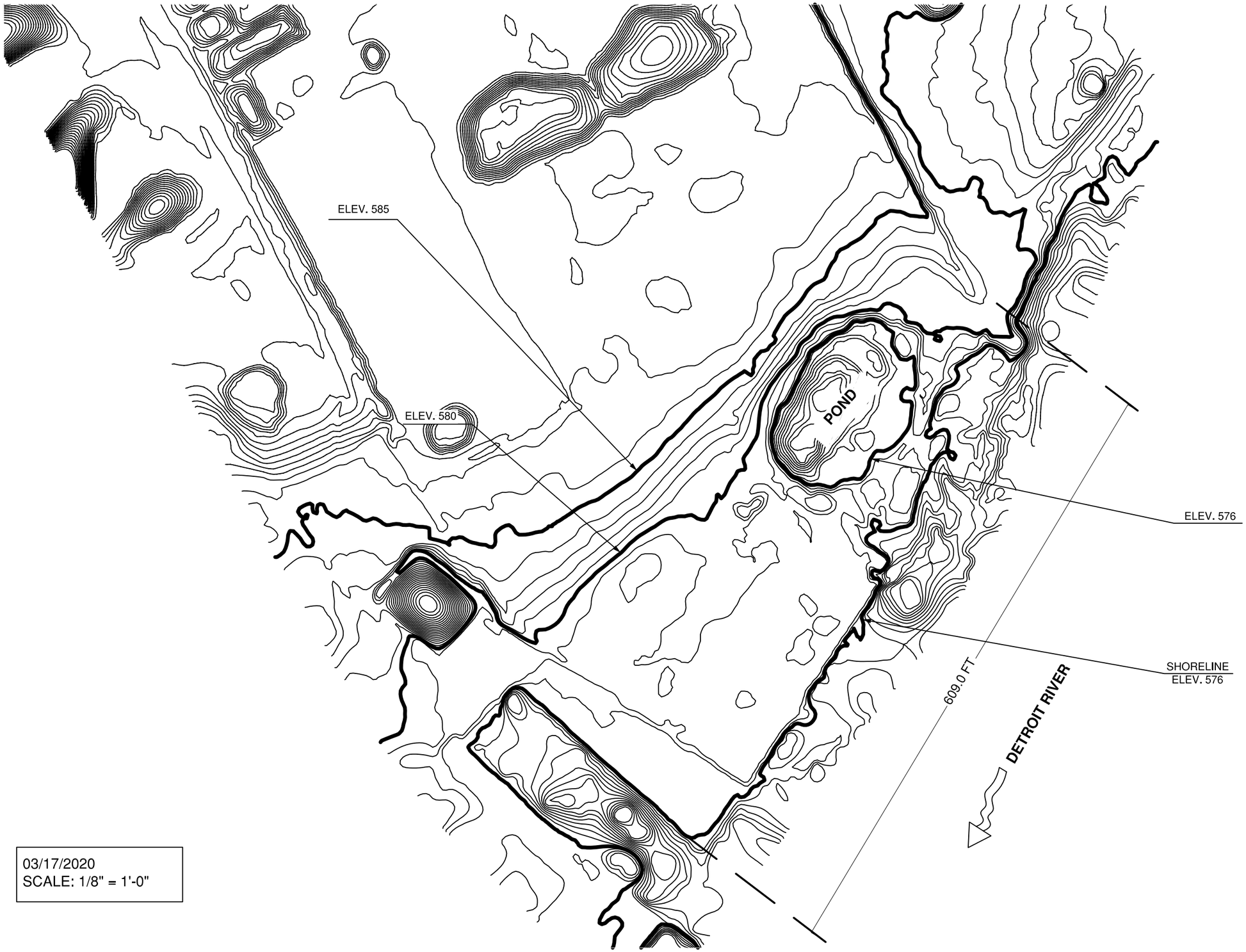
SHEET TITLE
CONTOUR MAP
03/11/2020

PLATE NO.
9



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03/17/2020
SCALE: 1/8" = 1'-0"

CONSULTING GROUP
1350 Eisenhower Place
Ann Arbor, Michigan 48108
office (734) 390-9330
fax (734) 390-9331

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REVERE DOCK, LLC

ADDRESS:
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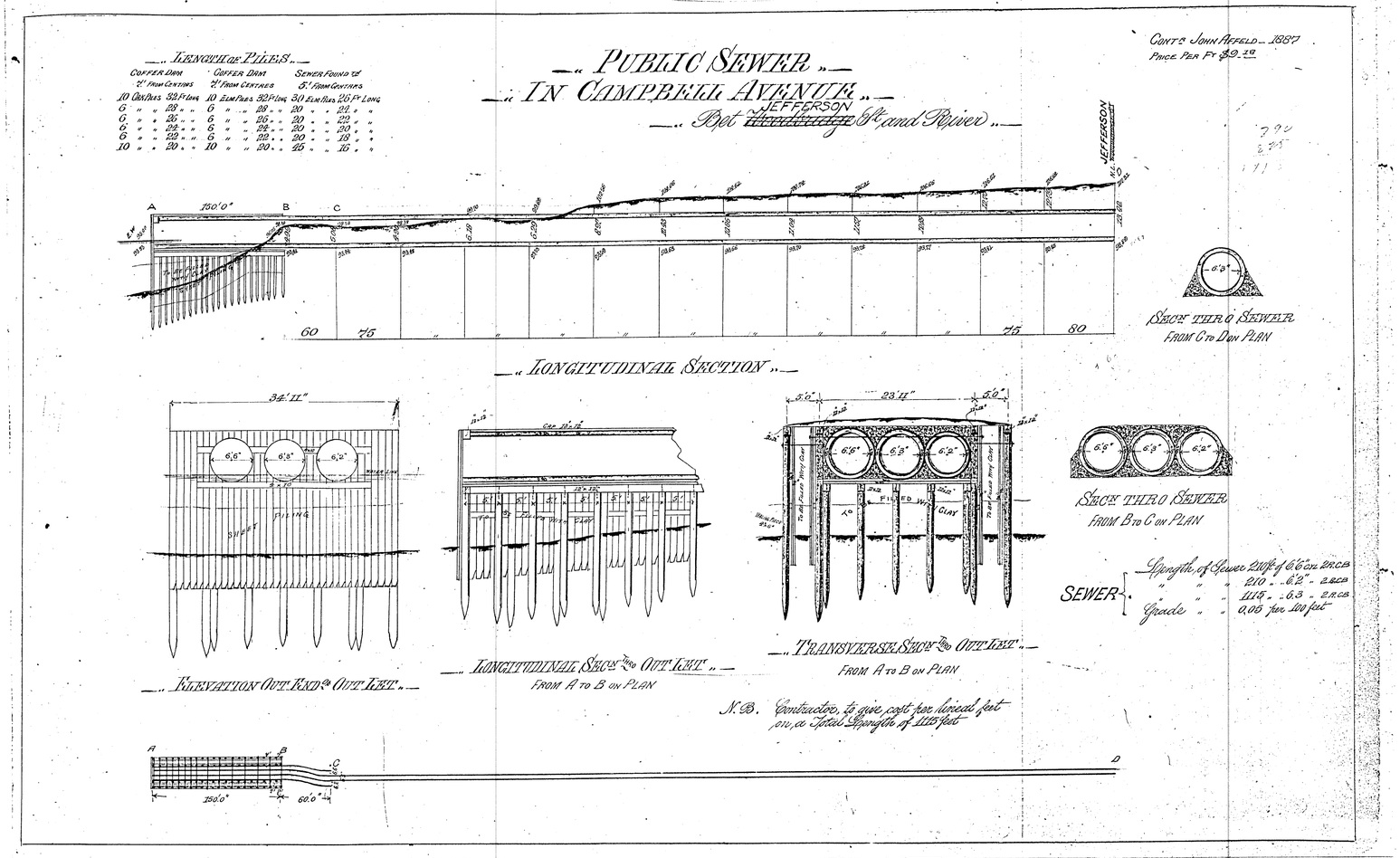
DETROIT, MICHIGAN

SHEET TITLE
CONTOUR MAP
03/17/2020

PLATE NO.
10

APPENDIX G - GLWA Outfall As-Builts

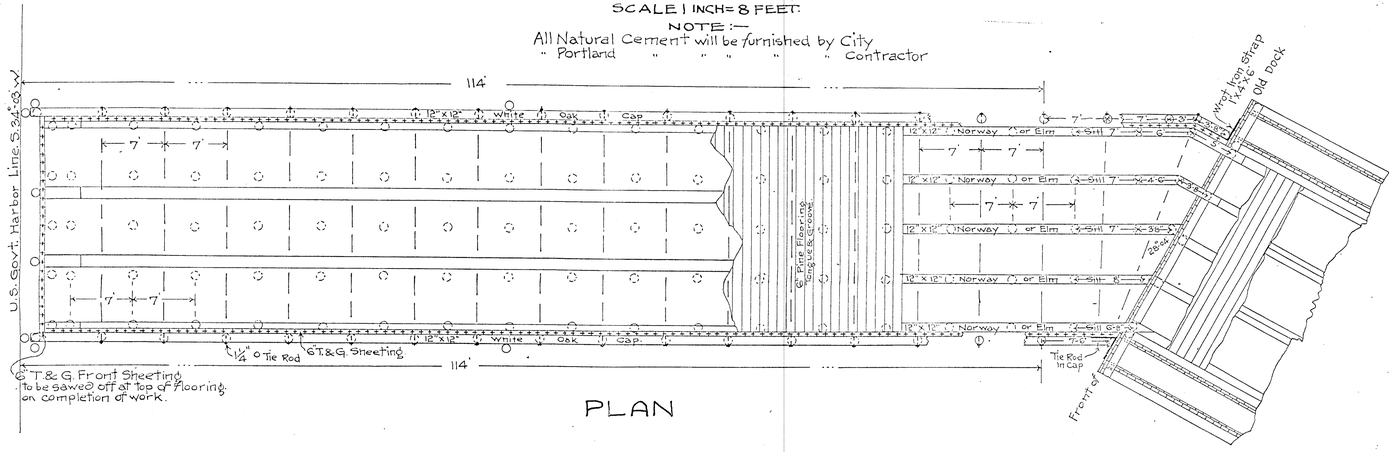


EXTENSION OF CAMPBELL AVE. SEWER & OUTLET FROM THE PRESENT TERMINUS TO THE U.S. GOV'T. HARBOR LINE.

LENGTH ON CENTER LINE OF SEWER 131.32 FEET.

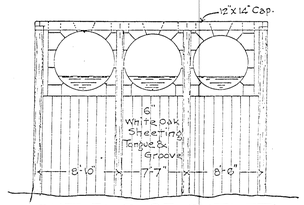
SCALE 1 INCH = 8 FEET.

NOTE:—
All Natural Cement will be furnished by City
" Portland " " " " " Contractor

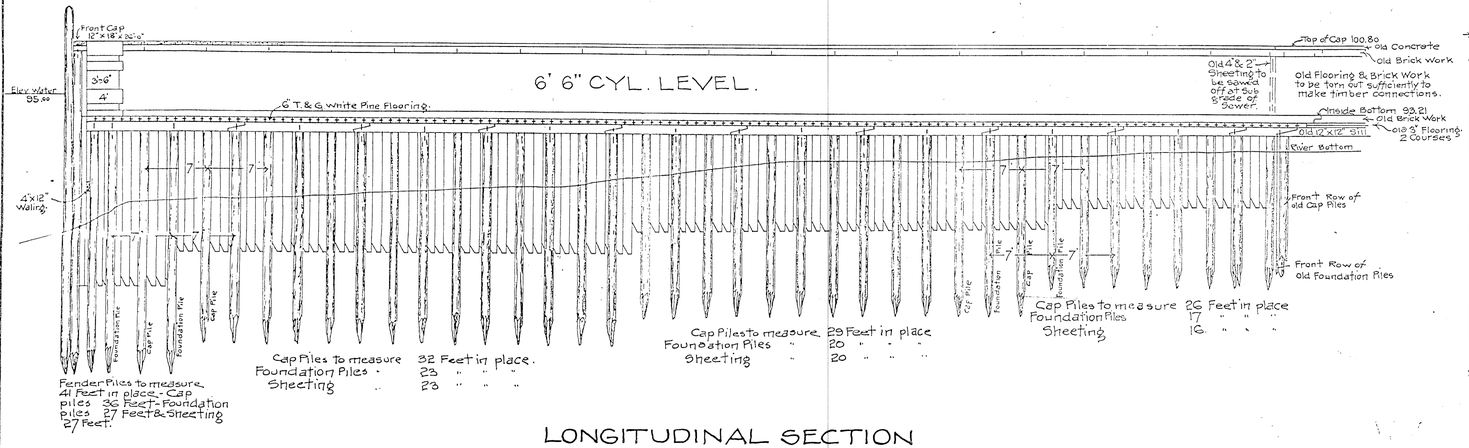


PLAN

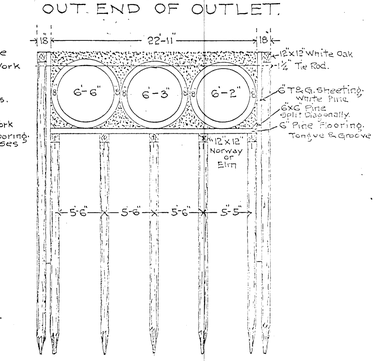
BILL OF MATERIAL					
No. of Pieces	SIZE	LIN. FT.	BD. FT.	No. of Pieces	LENGTH.
White Oak Caps				Norway or Elm Foundation Piles	
1	12"x18"x26'	26	468	15	30'
16	12"x12"x16'	256	3072	35	30'
1	12"x12"x20	20	240	30	20'
1	12"x12"x6'	6	72	17	15'
1	12"x12"x10'	10	120	White Oak Cap Piles	
Norway or Elm Sills				6	35'
5	12"x12"x18'	90	1080	14	30'
36	12"x12"x16'	576	6912	4	30'
1	12"x12"x12'	12	144	1	20'
1	12"x12"x10'	10	120	White Oak Fender Piles	
2	12"x12"x14'	28	336	4	28'
2	12"x12"x8'	16	192	2	30'
T.&G. White Pine Sheeting					
44	6"x12"x28'	1232	7392	O Wrot Iron Tie Rods.	
102	6"x12"x24'	2448	14688	1¼" With nuts & O washers.	
94	6"x12"x22'	2068	12408		
39	6"x12"x18'	702	4212	O Drift Bolts.	
T.&G. White Pine Flooring				146	1"x24"
36	6"x12"x23'	828	18768		
6"x6" Pine Split Quarrel				Wrot Iron Straps.	
		308	462	5	1"x4"x6'
Pine Walling					
1	2"x12"x26'	24	36	Brick.	
				104,000 G. More or Less.	
				Concrete.	
				259 Cu. Yds. More or Less of Kelly Island or Bedford Stone	



OUT. END OF OUTLET.



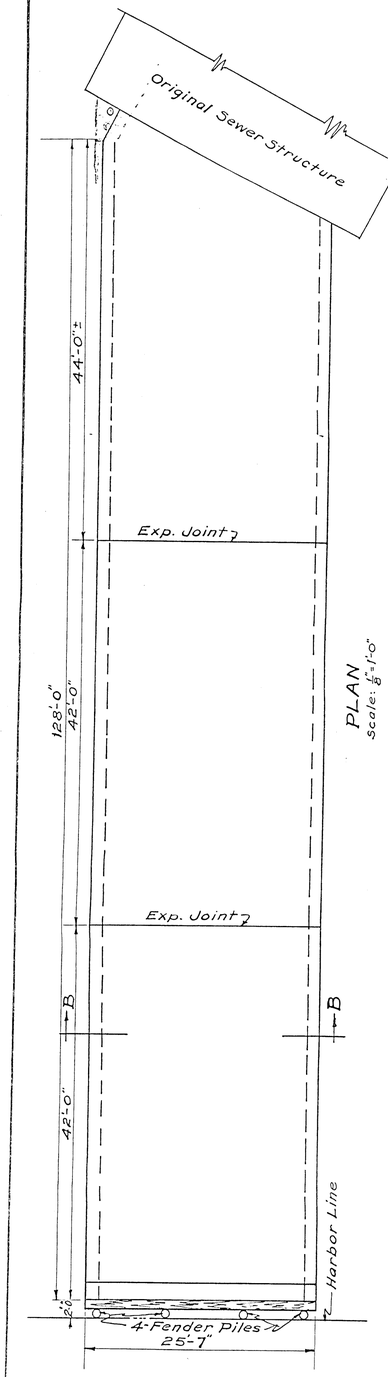
LONGITUDINAL SECTION



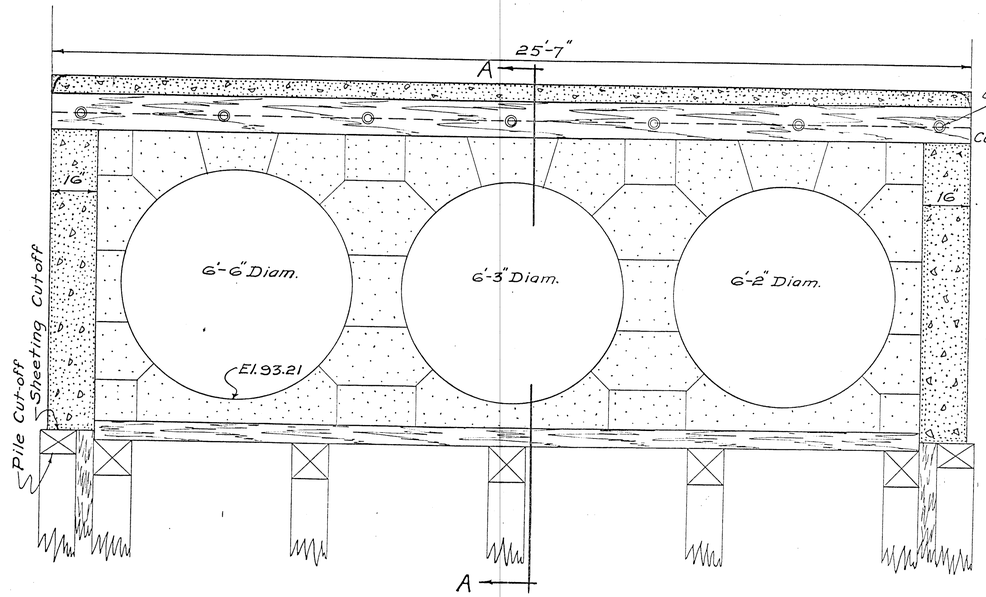
SECTION THROUGH SEWER

3535

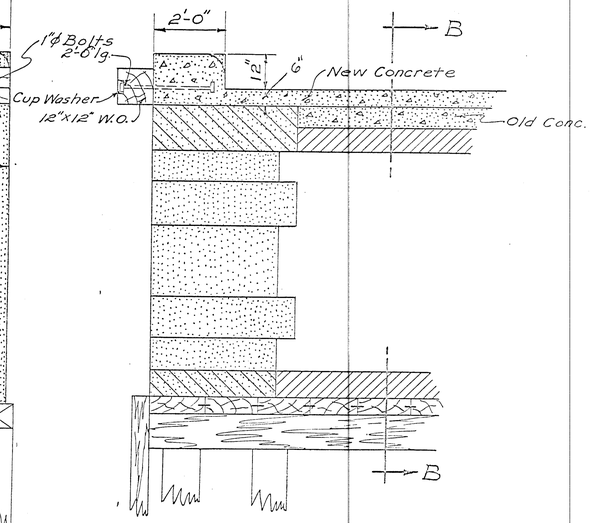
City Engineers Office, July, 1908.



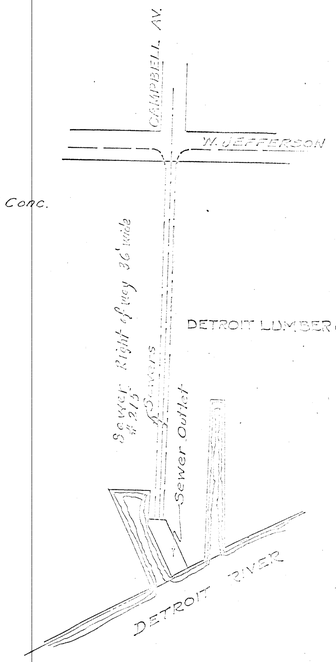
PLAN
Scale: 1/8"=1'-0"



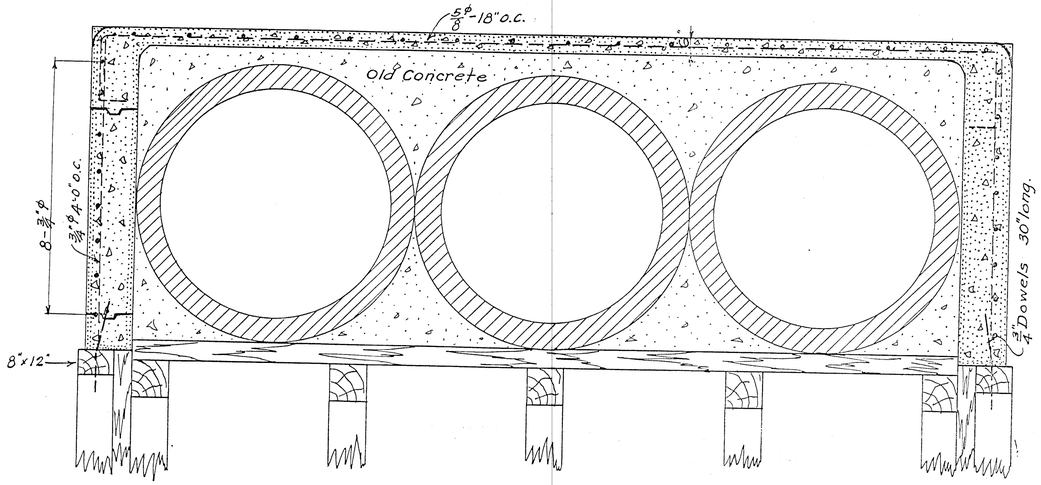
END ELEVATION
Scale 1/2"=1'-0"



SECTION A-A



LOCATION PLAN
Scale 1"=200'



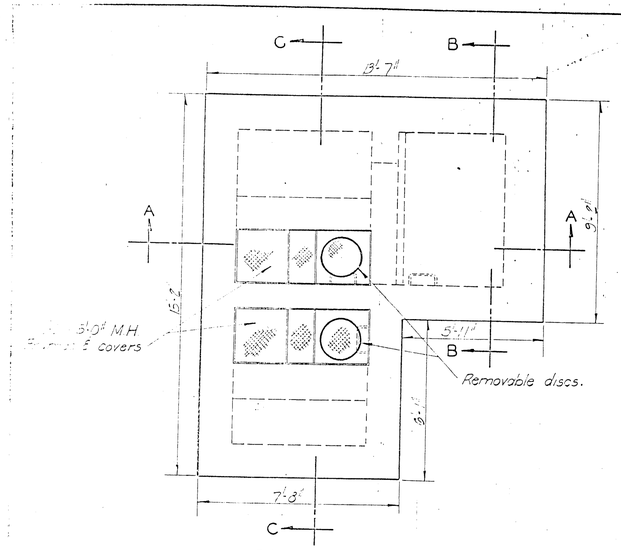
SECTION B-B

Reinforcing steel bars	31- 3/4"φ	2'-6" Dowels
	67- "	8'-0"
	32- "	41'-6"
	8- "	48'-0"
	8- "	35'-0"
	81- 5/8"φ	30'-0"
	8- "	22'-6"
	34- "	41'-6"
	17- "	36'-0"
Timber	1- 12"x 12" x 26'-0" W.O.	
	17- 8"x 12" x 16'-0"	
	4- Piles 30'-0"	
Bolts	7- 1"φ bolts 2'-6"	
	7- Cup washers	

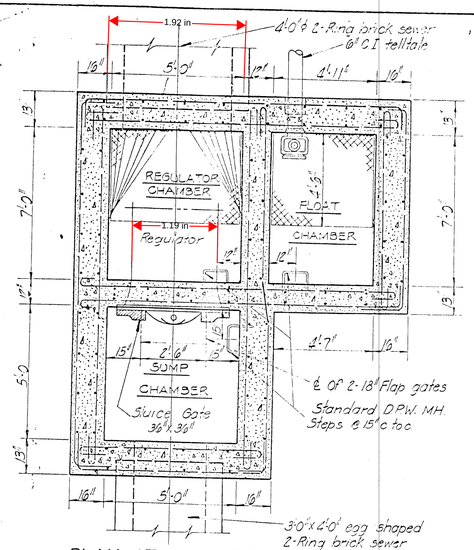
170- Cu. yds. Concrete.

CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS
CITY ENGINEERS OFFICE
BUREAU OF PUBLIC STRUCTURES
CAMPBELL AVE.
SEWER OUTLET RECONSTRUCTION (PWA)

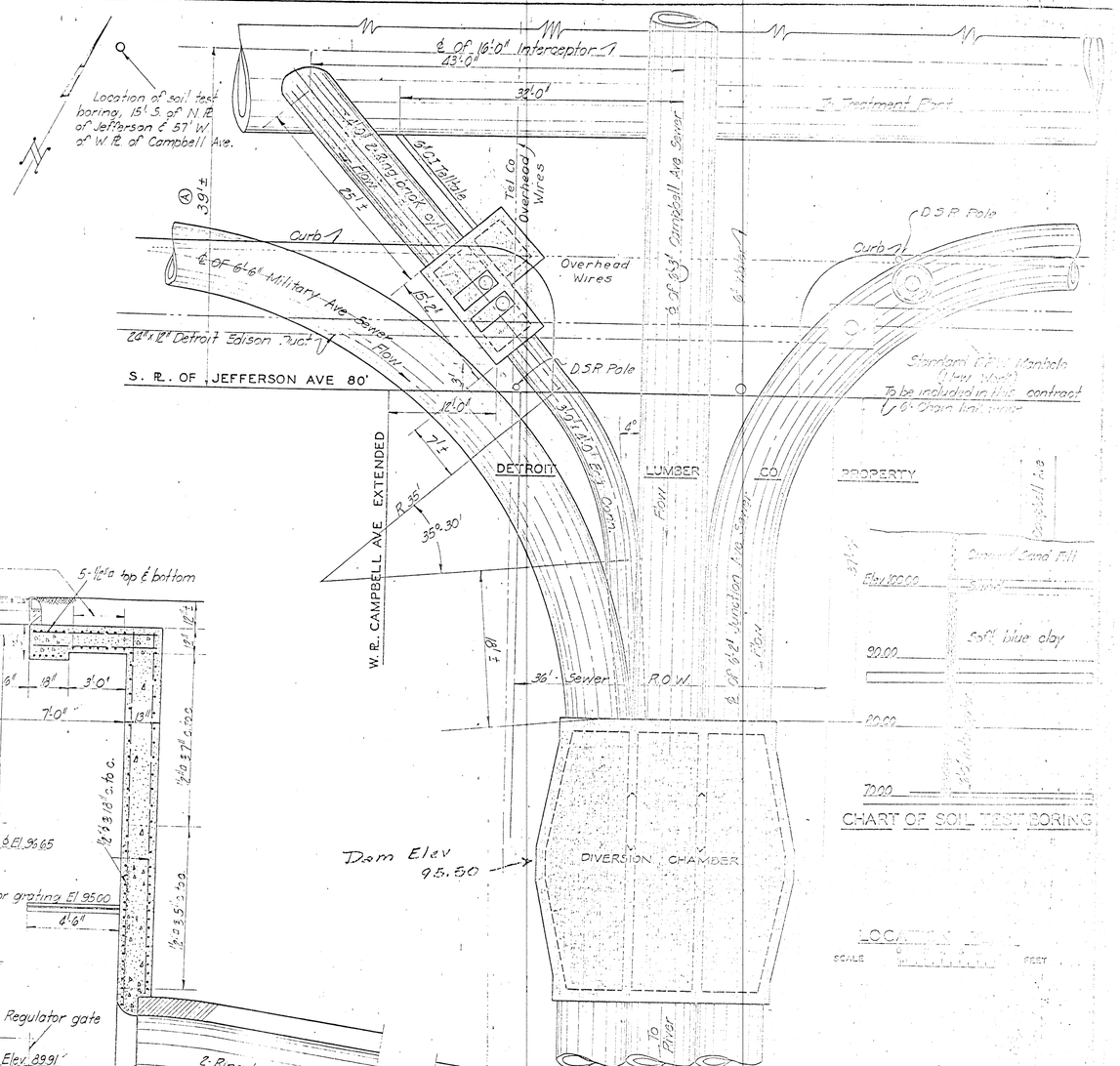
SCALES AS NOTED AUG. 1933
COMPLETED 12-5-34.
DRAWN BY I.O.T. TRACED BY E.S.M. CHECKED BY
BOOKED BY M.E. MORNINGSIDE 1-16-36. PAGE NO.
FIELD BOOK (DOCK OUTLET) SHEET 1 OF 1 SHEET

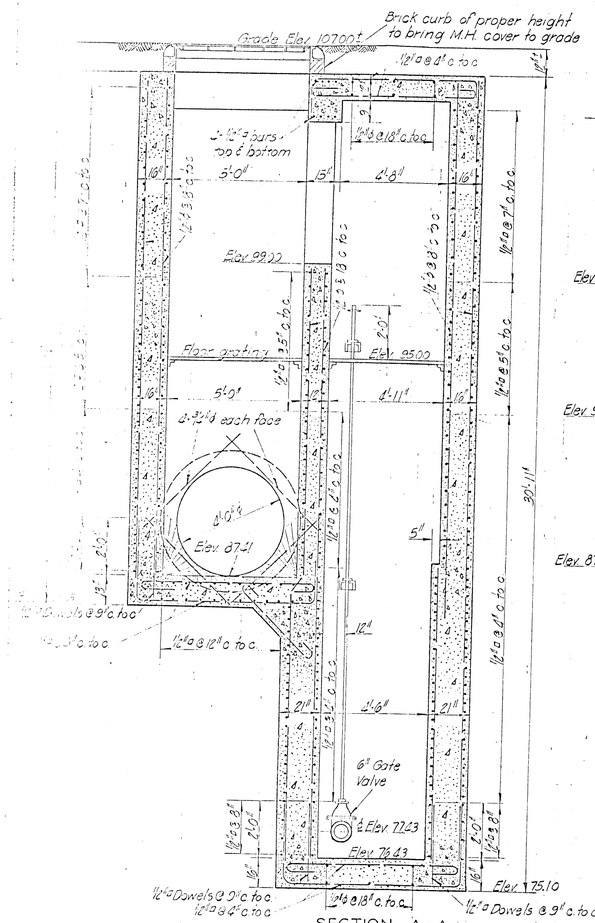


ROOF PLAN

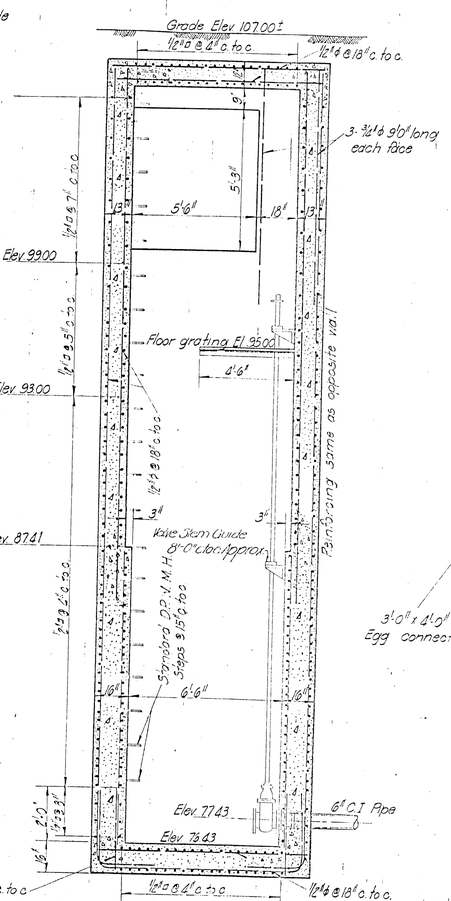


PLAN AT ELEV. 96.00

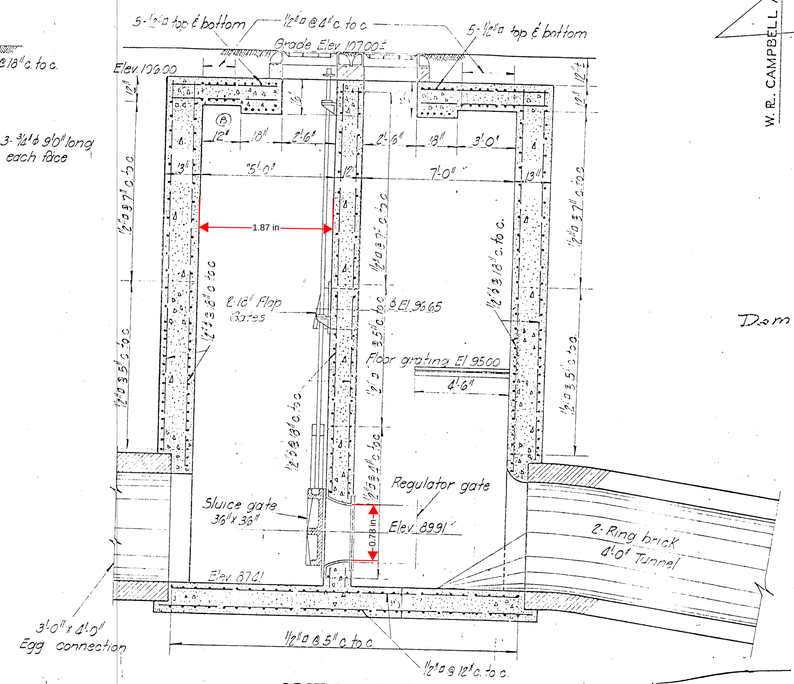




SECTION A-A



SECTION B-B



SECTION C-C

$$Q_{reg} = 0.6 \times 3 \times 3 \sqrt{2 \times 32.2 (9515 - 8991)}$$

$$\boxed{Q_{reg} = 102.457 \text{ cfs}}$$

Note:
Sewage flow shall be maintained in Military, Campbell, & Junction Ave. sewers by contractor during course of construction.

					REFERENCE DRAWINGS
Dimension on Sect. C-C corrected	E.G.	L.J.	1/10/37		
Showing location of 16' Interceptor	E.G.	L.J.	1/10/37		
DESCRIPTION	DRN	CKD	APVD	DATE	
REVISIONS					

DESIGNED BY	C.L. PALMER
DRAWN BY	R.W. STEVENTON
TRACED BY	RIPS & CLEMENT
CHECKED BY	J.W. ORTON

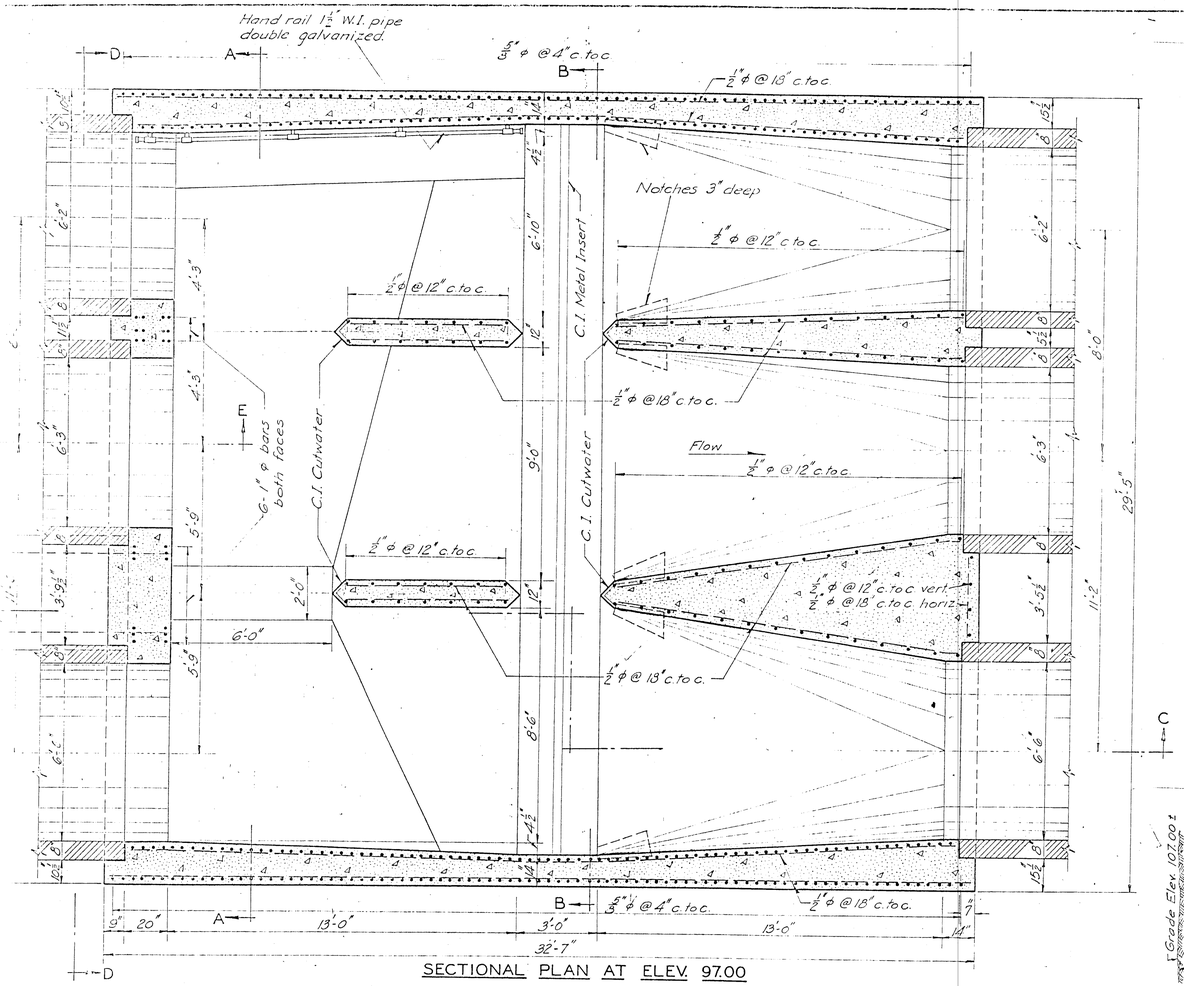
APPROVED:
Arthur B. Morrill
ASSOCIATE ENGINEER: CIVIL & SANITARY
M. F. Wagnitz
ENGINEER OF PUBLIC STRUCTURES
F. E. Vaughan
CITY ENGINEER

DETROIT RIVER INTERCEPTOR
SEWAGE REGULATION CHAMBERS
CHAMBER NO. 32
CAMPBELL AVE AT JEFFERSON AVE

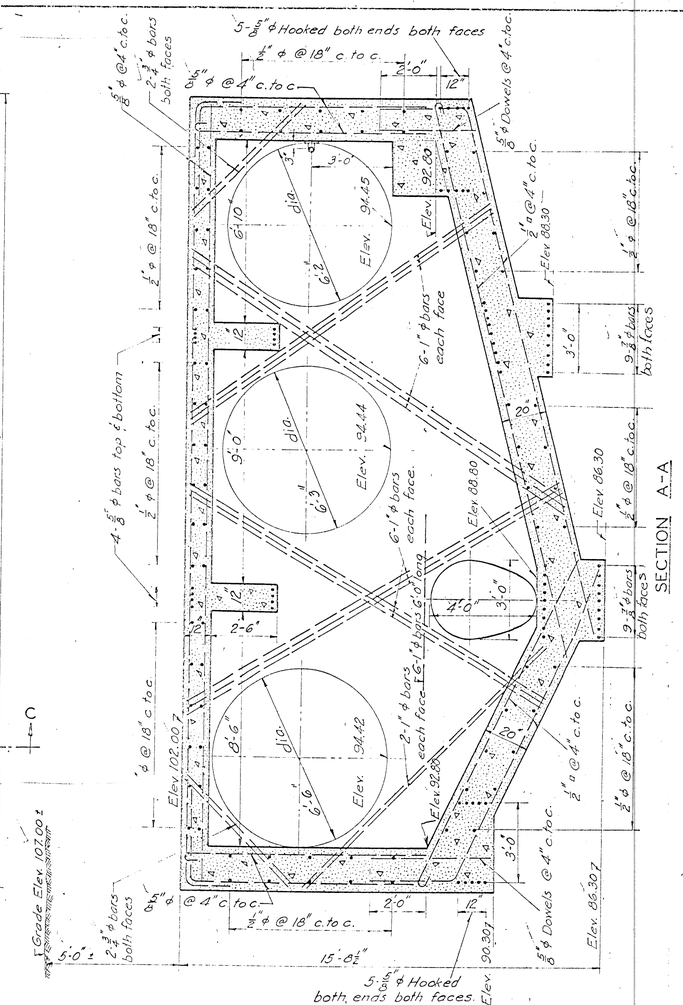
SCALE 0 1 2 3 4 5 FEET
EXCEPT AS SHOWN

JANUARY 1937

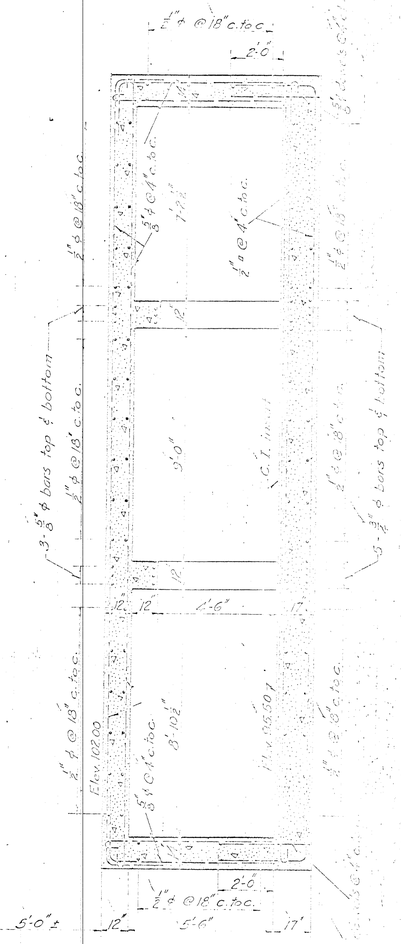
CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS
CITY ENGINEERS OFFICE
BUREAU OF PUBLIC STRUCTURES
SEWAGE DISPOSAL PROJECT
P. W. A. DOCKET NO. 2602-R



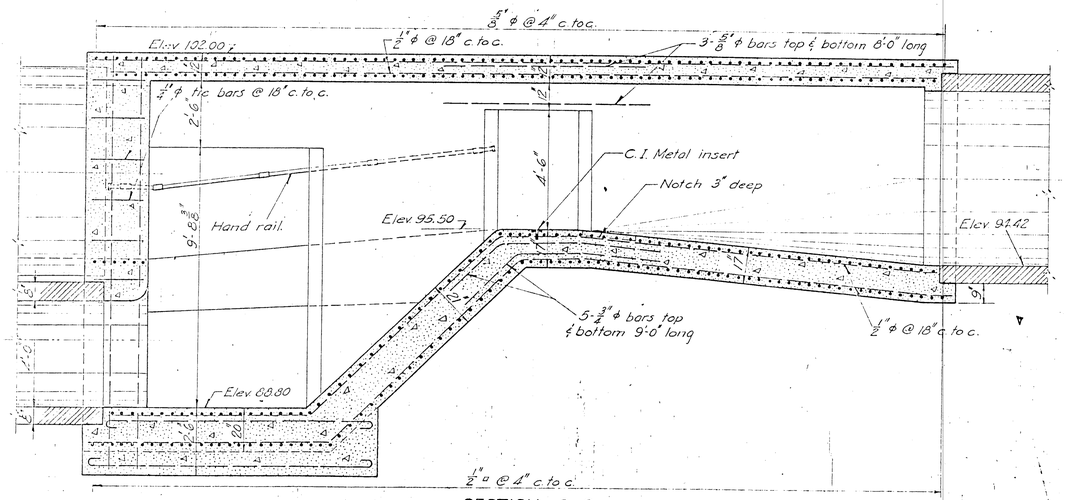
SECTIONAL PLAN AT ELEV. 97.00



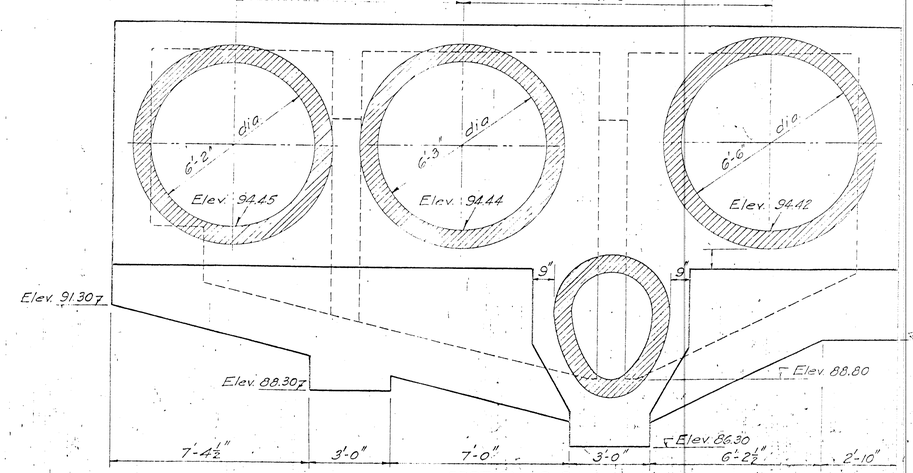
SECTION A-A



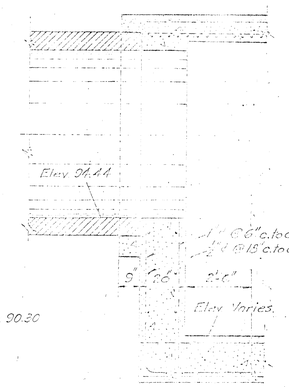
SECTION B-B



SECTION C-C



SECTION D-D



SECTION E-E

				REFERENCE DRAWINGS	DESIGNED BY	C. L. Palmer
					DRAWN BY	R. W. Steventon
					TRACED BY	E. A. Povlitz
...ed structure width to actual sewer spacing	E.A.P.	R.W.S.	J.W.O.	8-3-37	CHECKED BY	J. W. Orton
DESCRIPTION	BY	CHK	APVD	DATE		
REVISIONS						

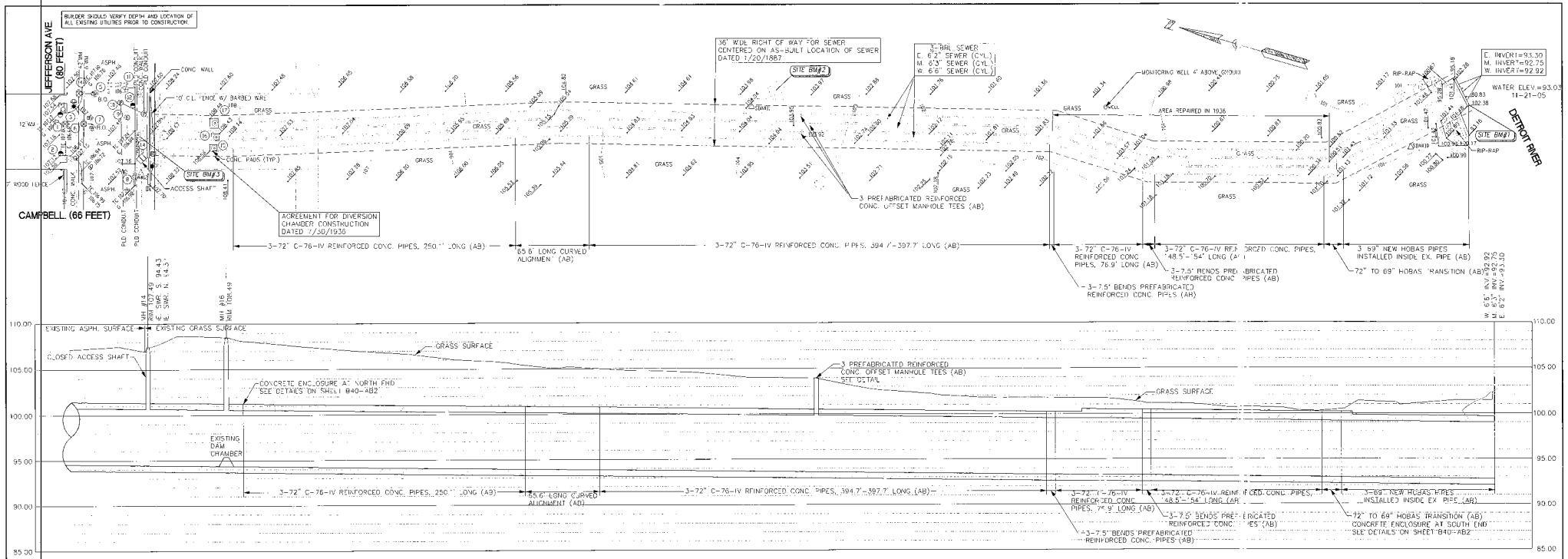
APPROVED:
Arthur B. Morrill
ASSOCIATE ENGINEER CIVIL & SANITARY
W. F. Wagner
ENGINEER OF PUBLIC INSPECTION
G. A. Bowman
CITY ENGINEER

DETROIT RIVER INTERCEPTOR
SEWAGE REGULATION CHAMBERS
CHAMBER NO. 32'
CAMPBELL AVE. AT W. JEFFERSON AVE.

SCALE 0 1 2 3 4 5 FEET

AUGUST 3-1937

CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS
CITY ENGINEER, GEORGE
BUREAU OF PUBLIC STRUCTURES
SEWAGE DISPOSAL PROJECT
P.W.A. DOCKET NO. 9602-R



3 - BBL SEWER (CYL.)

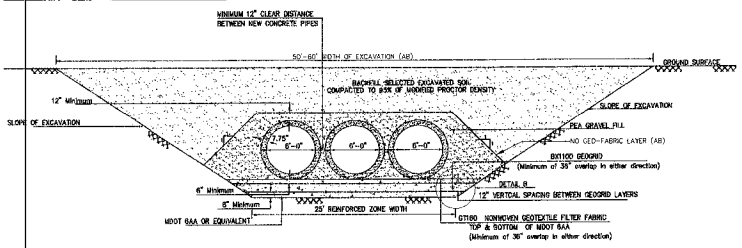
VERTICAL SCALE
SCALE 1" = 5'

LEGEND

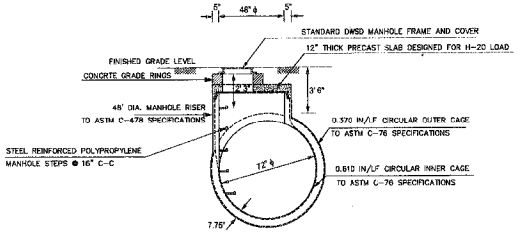
EXIST. WATER MAIN	24" & OVER
SENSOR LINE & MANHOLE	
GAS MAIN & MANHOLE	G
P.I.D. & MANHOLE	P
DETROIT EDISON MAIN & MANHOLE	E
DETROIT EDISON STEAM MAIN & MANHOLE	S
TELEPHONE & MANHOLE	T
FENCE	
D.S.R. OR RAILROAD TRACKS	
CONDUIT & MANHOLE	C
STREET DRAINAGE INLET (C.B.)	
UTILITY POLE	
UTILITY MARKER	
LIGHT POLE	
DE. ED. RISER	
TREE	
TREE STUMP	
MAIL BOX, PARKING METER OR SIGN	
SIGN POST	
PLANTER	
CONCRETE MONUMENT	
EXIST. DWSD VALVE & WELL	
EXIST. WATER MANHOLE	
EXIST. DWSD VALVE & BOX	
EXIST. FIRE HYDRANT (2 NOZZLE)	
PHONE BOOTH	
GAS DRIP OR GAS VALVE/BOX	
HAND HOLE	
ORNAMENTAL LIGHT	

BENCHMARK DESCRIPTIONS

HO-255A	BRASS DISK IN HH @ N.W. COR. JEFFERSON & FERDINAND	ELEV.=102.19
SITE BM#1	ARROW ON HYDRANT @ NW COR. ATWATER & JOS. CAMPAU	ELEV.=102.41
SITE BM#2	SET NAIL IN W FACE INLET O F SIDE OF DRIVE 25' SE OF TPW	ELEV.=106.34
SITE BM#3	CJ" + IN RIM MH @ S SIDE JEFFERSON & CAMPBELL	ELEV.=107.49



CROSS SECTION OF NEW CONCRETE PIPES



TYPICAL CROSS SECTION OF
72" C-76-IV OFFSET TEE MANHOLE
SCALE N.T.S.

NAME OF CONTRACT: DWS-849
NAME OF CONTRACTOR: LAKESHORE ENGINEERING SERVICES, INC.
DATE: 2-17-06
INSPECTORS: PHIL WATSON, RONALD HOLLOWAY
AS-BUILT DRAWING FOR: CAMPBELL OUTFALL, B40

(CIPP) - CURED IN-PLACE PIPE
(P.R.) = PER RECORD
(AB) = AS-BUILT

SURVEYOR'S STATEMENT

WE HEREBY STATE THAT ALL INFORMATION SHOWN HEREON IS TRUE AND CORRECT TO THE BEST OF OUR KNOWLEDGE AND BELIEF AND IS FROM ACTUAL FIELD MEASUREMENTS UNLESS OTHERWISE NOTED.

STATE OF MICHIGAN · MICHAEL F.H. DeDECKER · PROFESSIONAL SURVEYOR · No. 44282 · PROFESSIONAL SURVEYOR

Michael F.H. DeDecker
2/22/07

MICHAEL F. H. DeDECKER
PROFESSIONAL SURVEYOR No. 44282

REVISION	DESCRIPTION	CHK'D	APPROVED	DATE
F				
E				
D				
C				
B				
A				

DRAWN BY: T.JUDSON			
DESIGNED BY:			
CHECKED BY: M.DeDECKER			
APPROVED BY: M.DeDECKER			
CAD DISK	DIRECTORY	FILE NAME	DATE
	–		2-17-06

STATE OF MICHIGAN · MICHAEL F.H. DeDECKER · PROFESSIONAL SURVEYOR · No. 44282 · PROFESSIONAL SURVEYOR

DWS-849 DESIGN-BUILD SERVICES ON AS NEEDED BASIS FOR INSPECTION AND IN PLACE REHABILITATION OF EXISTING TEN (10) OUTFALLS, DETROIT

AS-BUILT DRAWING - CAMPBELL OUTFALL (B40)
PLAN AND PROFILE

SCALE: 1" = 40'
DATE: 2-17-06

WATER AND SEWERAGE DEPARTMENT
ENGINEERING DIVISION

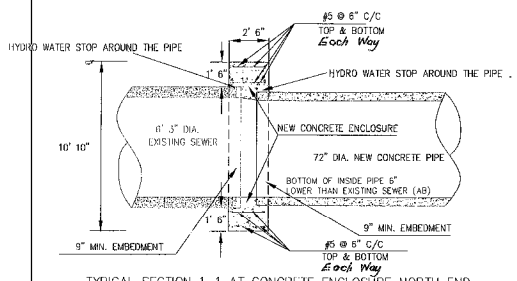
LAKESHORE ENGINEERING SERVICES, INC.
Solution Provider - Environmental Engineering

7310 Woodward Ave., Detroit, MI 48 2 8 · Tel: (313) 875-4115 · Fax: (313) 8 5-1732 · www.lakeshoreeng.com · info@lakeshore ... com

DeDECKER & ASSOCIATES
220 W. CONGRESS, SUITE 400
DETROIT, MI 48226
PHONE: (313) 967-4700
FAX: (313) 967-4707
www.spaldingdedecker.com

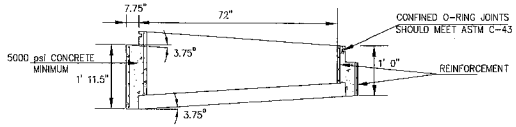
SECTION MAP	TOWN	RANGE	SECTION	PORTION CODE	FAMIS NO. (DESIGN) (CONSTRUCTION)

M.D.P.H./D.N.R. PERMIT NO.	
REF. NO.	
CONTRACT NO.	DWS 849
FILE NO.	B-40
DRAWING NO.	B40-AB1



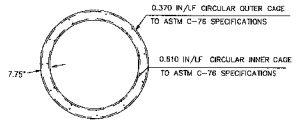
TYPICAL SECTION 1-1 AT CONCRETE ENCLOSURE NORTH END

SCALE N.T.S.



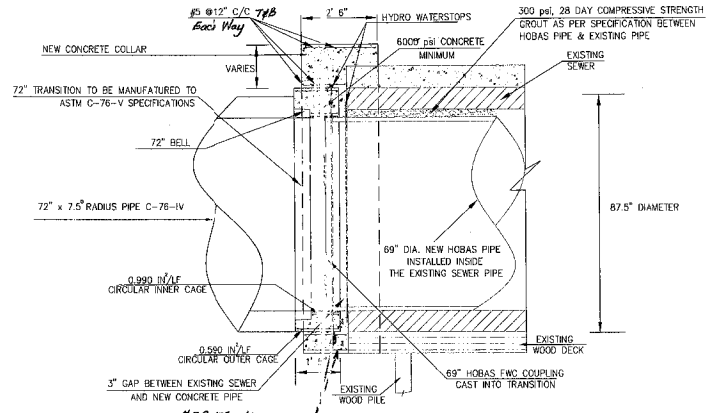
TYPICAL LONGITUDINAL SECTION OF 72" X 7.5° RADIUS PIPE C-76-IV

SCALE N.T.S



TYPICAL CROSS SECTION OF 72" X 7.5° RADIUS CONCRETE PIPE C-76-IV

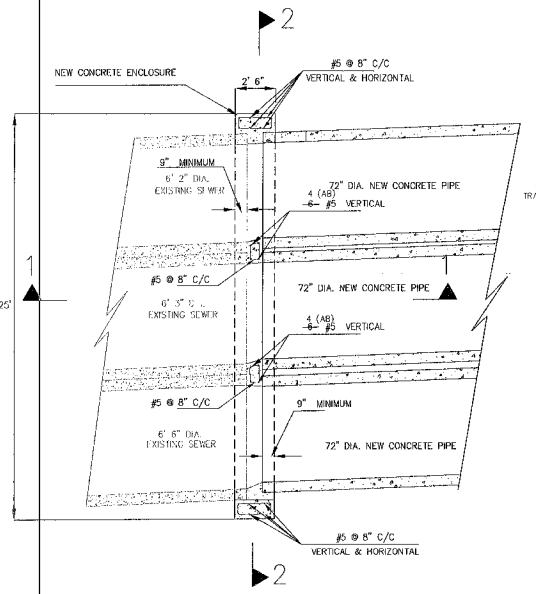
SCALE N.T.S



TYPICAL SECTION 72" X 1' 5" TO 69" HOBAS TRANSITION C-76-V AT SOUTH END

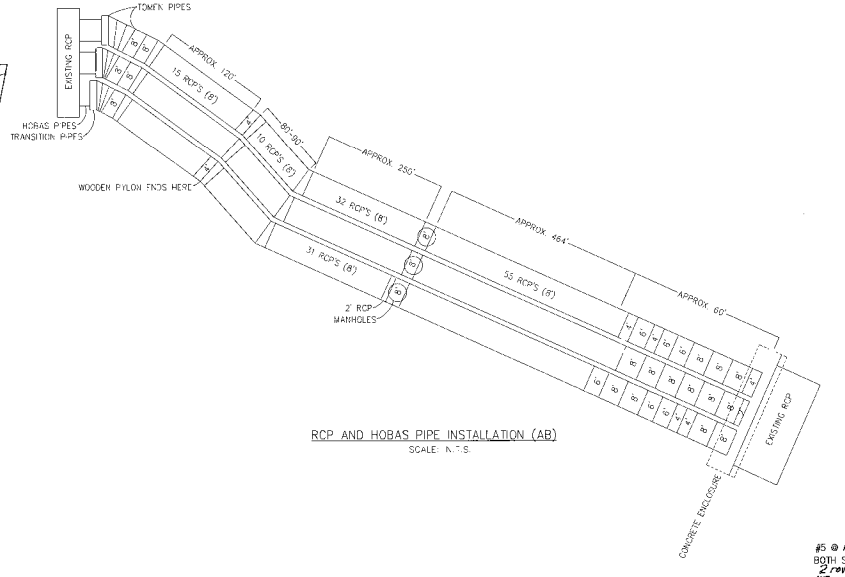
SECTION 3-3

SCALE N.T.S



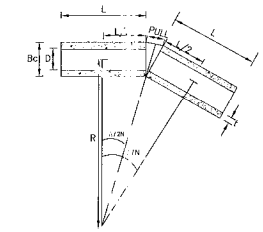
CONCRETE ENCLOSURE PLAN AT NORTH END

SCALE N.T.S.



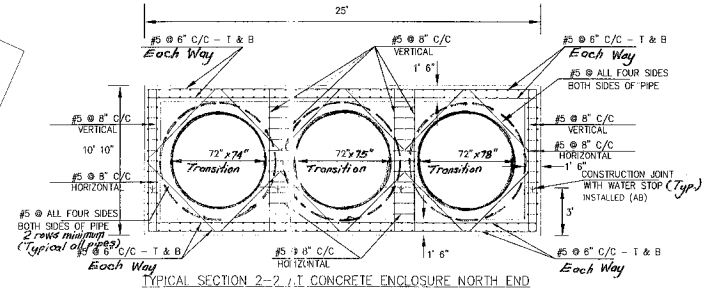
RCP AND HOBAS PIPE INSTALLATION (AB)

SCALE: N.T.S.



SCHEMATIC PLAN FOR DEFLECTED PIPE

SCALE:- NO TO SCALE



TYPICAL SECTION 2-2 AT CONCRETE ENCLOSURE NORTH END

SCALE N.T.S.

F					
E					
D					
C					
B					
A					
	DESCRIPTION REVISION	CHK'D	APPROVED	DATE	

DRAWN BY: T.JUDSON

DESIGNED BY:

CHECKED BY: M.DeDECKER

APPROVED BY: M.DeDECKER

CAD DISK	DIRECTORY	FILE NAME	DATE
	–		2-17-06

STATE OF MICHIGAN — MICHAEL F.H. DeDECKER — PROFESSIONAL SURVEYOR — No. 44286 — LICENSED PROFESSIONAL SURVEYOR

DWS-849 DESIGN-BUILD SERVICES ON AS NEEDED BASIS FOR INSPECTION AND IN PLACE REHABILITATION OF EXISTING TEN (10) OUTFALLS, DETROIT

AS-BUILT DRAWING - CAMPBELL OUTFALL (B40)
SECTIONS AND DETAILS

SCALE: 1" = 40'

DATE: 2-17-06

WATER AND SEWERAGE DEPARTMENT
ENGINEERING DIVISION

LAKESHORE ENGINEERING SERVICES, INC.
Solution Provider - Environmental Engineering
7310 Woodward Ave., Detroit, MI 48202
Tel: (313) 875-4115 · Fax: (313) 875-7133
www.lakeshoreeng.com E-Mail: info@lakeshoreles.com

220 W. CONGRESS, SUITE 400
DETROIT, MI 48226
PHONE: (313) 967-4700
FAX: (313) 967-4707
www.spaldingdedecker.com

SECTION MAP	TOWN	RANGE	SECTION	PORTION CODE	FAMIS NO. (DESIGN) (CONSTRUCTION)

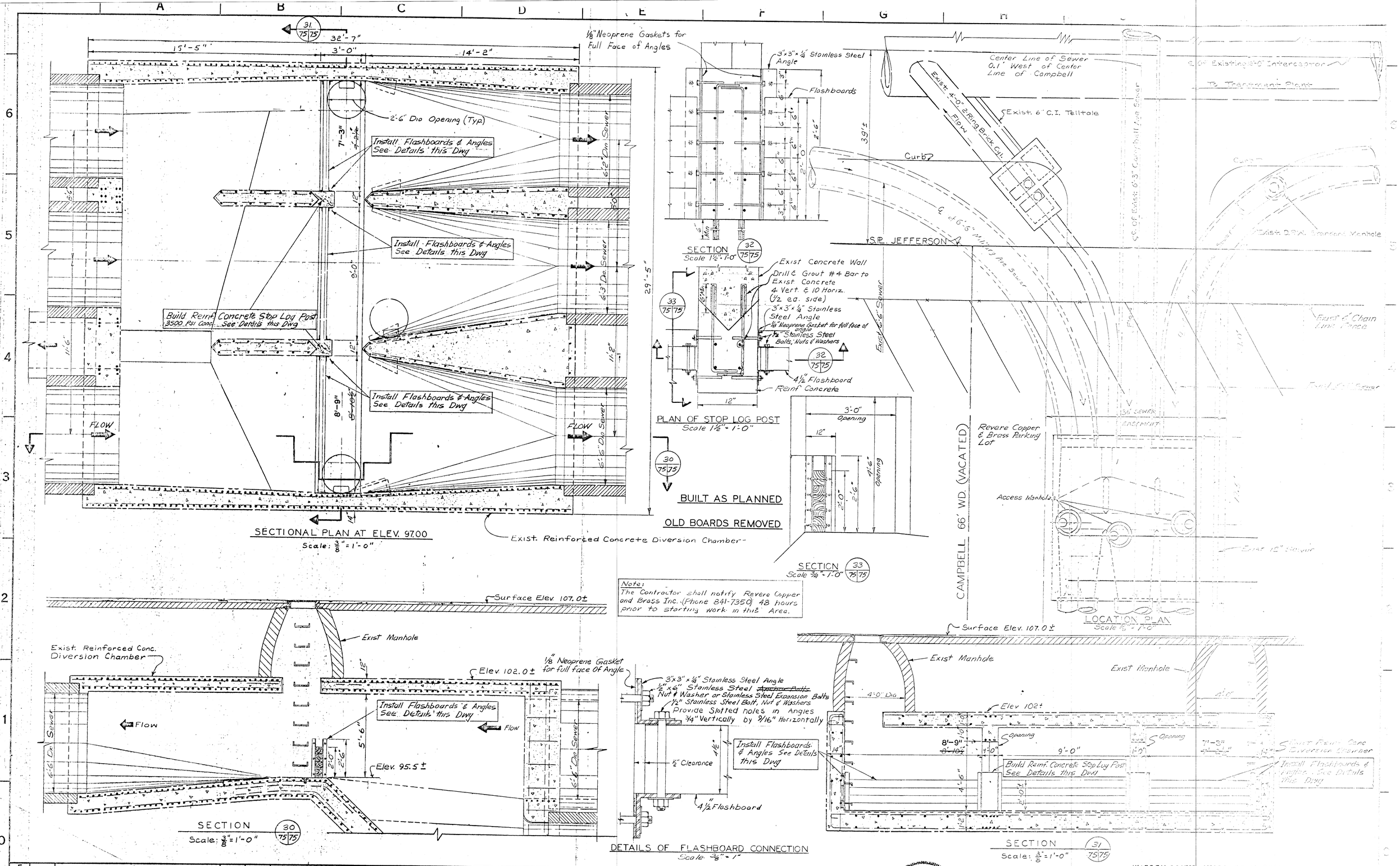
M.D.P.H./D.N.R. PERMIT NO.

REF. NO.

CONTRACT NO. DWS 849

FILE NO. B-40

DRAWING NO. B40-AB2



Note: The Contractor shall notify Revere Copper and Brass Inc. (Phone 841-7350) 48 hours prior to starting work in this Area.

CO-OR.	DESCRIPTION	APRVD.	DATE
	REVISIONS		

DESIGNED BY D. Kopp
DRAWN BY J. Fetz
CHECKED BY A. J. Somerville DAH
WASTEWATER ENGINEER H. E. Duke

APPROVED
HEAD ENGINEER
DIRECTOR OF ENGINEERING

INFLOW ABATEMENT FACILITIES

FLASHBOARD INSTALLATION AT CAMPBELL & JEFFERSON

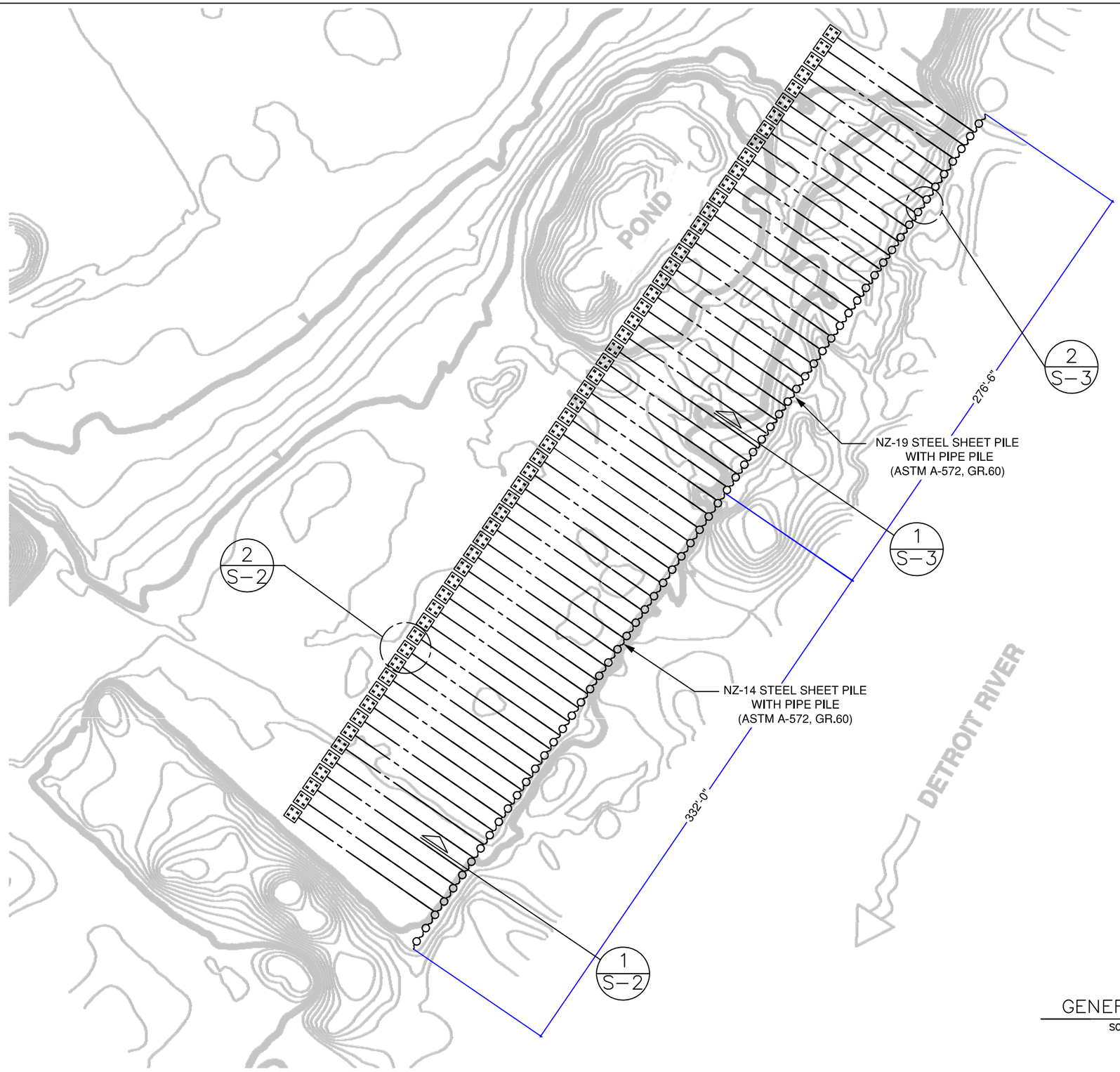
SCALE AS NOTED DATE DEC. 1979

STATE OF MICHIGAN D. G. SUHRE ENGINEER NO. 12415 REGISTERED PROFESSIONAL ENGINEER

CITY OF DETROIT WATER AND SEWERAGE DEPARTMENT
ENGINEERING DIVISION
POLLUTION CONTROL PROGRAM

WARREN CONTRACTORS - COMPLETED 1980

SECTION MAP	TOWN	RANGE	SECTION
17 H			



GENERAL PLAN VIEW

SCALE: 1/64" = 1'-0"

N

NOT FOR CONSTRUCTION

CONSULTING GROUP

1350 Eisenhower Place
Ann Arbor, Michigan 48108
office (734) 390-9330
fax (734) 390-9331

PROJECT NO: 193662

DATE: 03-25-2020

DRAWN BY: ZR

CHECKED BY: MSS

NO.:	REVISION/DESCRIPTION	DATE:

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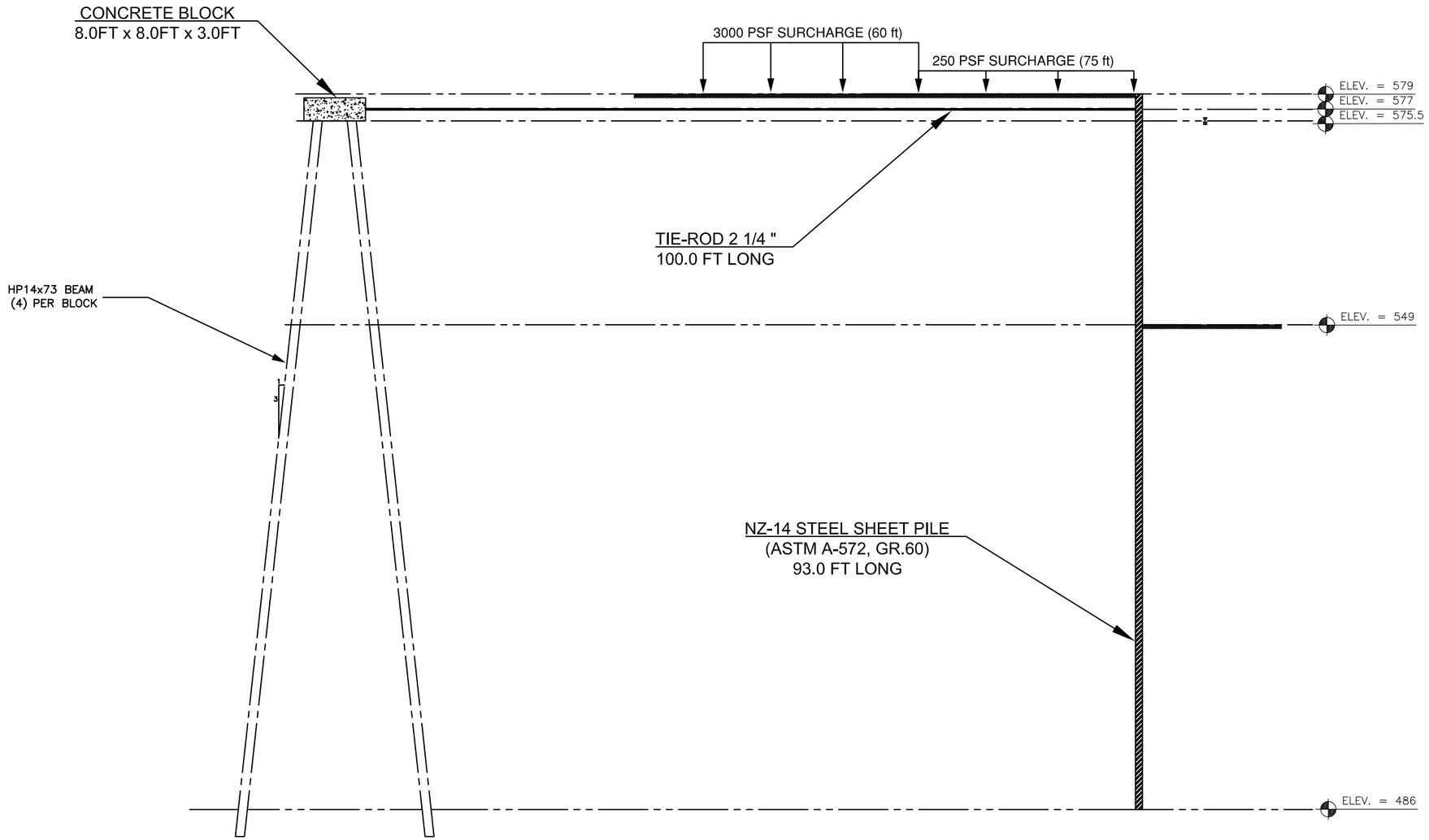
PROJECT NAME:
REVERE DOCK

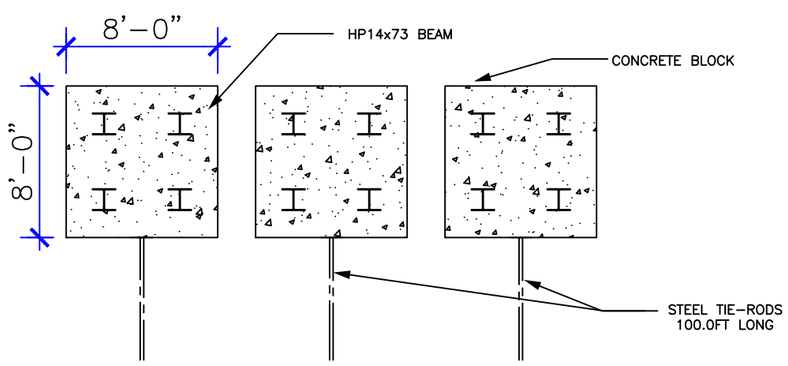
LOCATION:
5851 WEST JEFFERSON AVE.
CITY OF DETROIT, WAYNE COUNTY
MICHIGAN

SHEET TITLE
PROPOSED SEAWALL
GENERAL PLAN VIEW

SHEET NUMBER
S-1



1 / S-2 SECTION VIEW
SCALE: 1/16" = 1'-0"



2 / S-2 DEADMAN AND TIE-BACK SYSTEM
SCALE: 1/8" = 1'-0"

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1350 Eisenhower Place
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PROJECT NO: 200082

DATE: 02-07-2020

DRAWN BY: ZR

CHECKED BY: MSS

NO.:	REVISION/DESCRIPTION	DATE:

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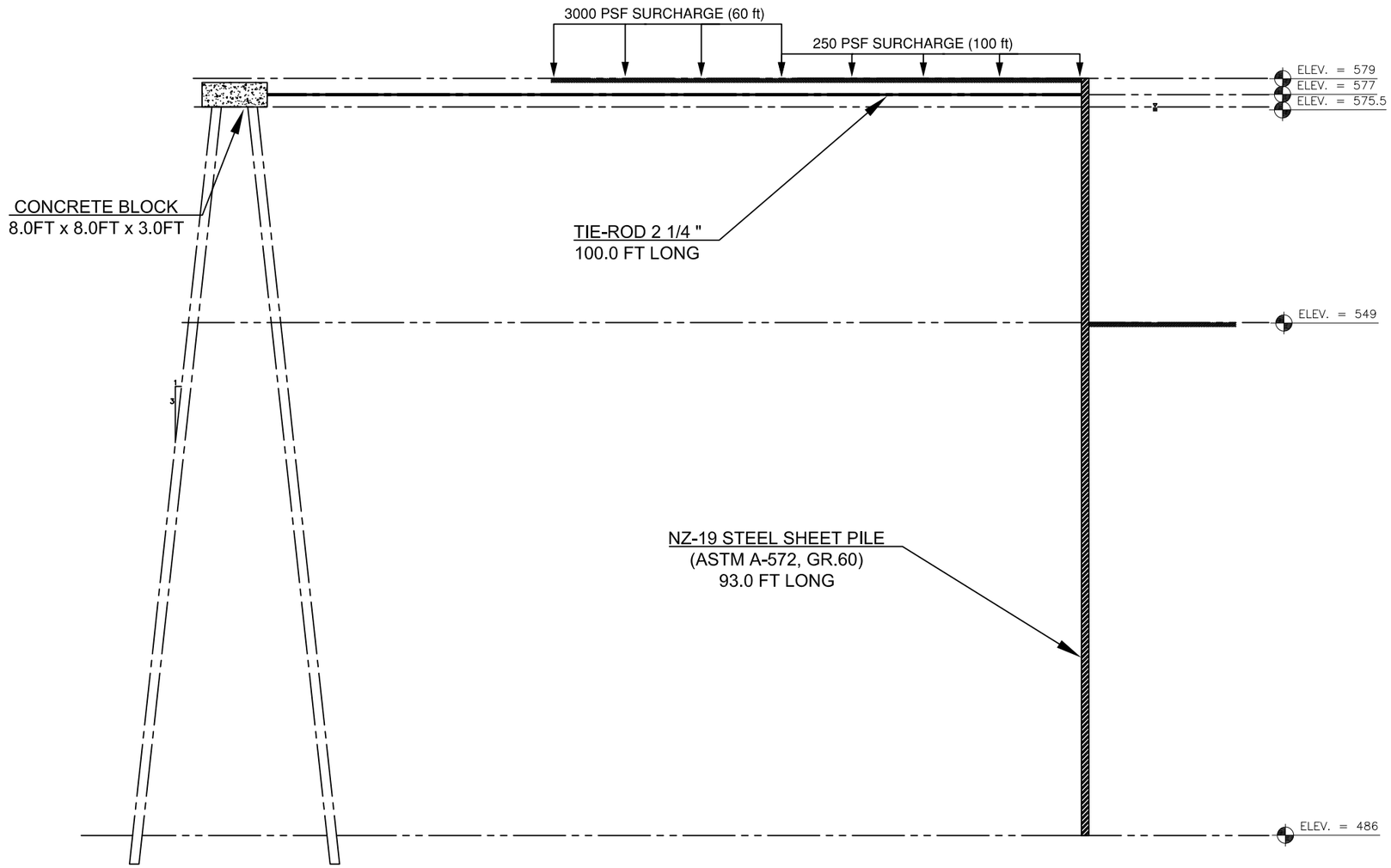
PROJECT NAME:
REVERE DOCK

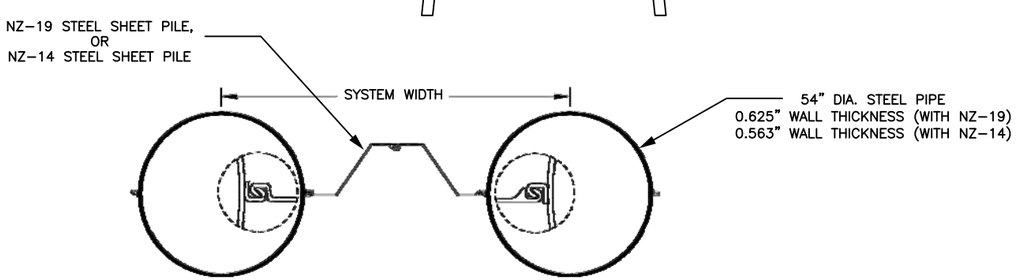
LOCATION:
5851 WEST JEFFERSON AVE.
CITY OF DETROIT, WAYNE COUNTY
MICHIGAN

SHEET TITLE
SHEET PILE SECTION VIEW
DOWNSTREAM / UNDISTURBED
ZONE

SHEET NUMBER
S-2



1 S-3 SECTION VIEW
SCALE: 1/16" = 1'-0"



2 S-3 PIPE-Z SYSTEM
N.T.S

NOT FOR CONSTRUCTION

CONSULTING GROUP
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PROJECT NO: 193662

DATE: 03-25-2020

DRAWN BY: ZR

CHECKED BY: MSS

NO.:	REVISION/DESCRIPTION	DATE:

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PROJECT NAME:
REVERE DOCK

LOCATION:
5851 WEST JEFFERSON AVE.
CITY OF DETROIT, WAYNE COUNTY
MICHIGAN

SHEET TITLE
SHEET PILE SECTION VIEW
UPSTREAM / DISTURBED
ZONE

SHEET NUMBER
S-3

CONSTRUCTION SEQUENCE

1. FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS BEFORE WORK STARTS
2. LOCATE AND/OR RELOCATE ALL UTILITIES IN WORK AREA.
3. AFTER GLWA OUTFALL RECONSTRUCTION IS COMPLETE, REMOVE DEBRIS ALONG PILE WALL ALIGNMENT.
4. DRIVE PILE WALL AS SHOWN, CONFIRM TWO FOOT OF PENETRATION INTO UNDERLYING HARDPAN.
5. DRIVE BATTERED PILES AS SHOWN; PERFORM PDA TESTING DURING INSTALLATION.
6. CONSTRUCT PILE CAP AND CONNECT TIE–RODS TO PILE WALL.
7. REMOVE EXISTING CONCRETE CAP.
8. BACKFILL BEHIND EXISTING WALL WITH SELF–COMPACTING AGGREGATE.
9. EXCAVATE TO DEPTHS SHOWN ON DRAWINGS AT BOTTOM OF SITE.
10. RESTORE SITE AS NECESSARY.

GENERAL NOTES

1. CONCRETE SHALL HAVE A 28–DAY COMPRESSIVE STRENGTH OF 4000 PSI.
2. STEEL SHALL CONFORM TO ASTM A–572, GRADE 60.
3. BACKFILL: CONTRACTOR TO SUBMIT FOR ENGINEER APPROVAL.

NOT FOR CONSTRUCTION

CONSULTING GROUP

1350 Eisenhower Place
Ann Arbor, Michigan 48108
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PROJECT NO: 193662

DATE: 03-25-2020

DRAWN BY: ZR

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NO.:	REVISION/DESCRIPTION	DATE:

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PROJECT NAME:
REVERE DOCK

LOCATION:
5851 WEST JEFFERSON AVE.
CITY OF DETROIT, WAYNE COUNTY
MICHIGAN

SHEET TITLE
NOTES

SHEET NUMBER
S-4

Appendix B

PM ENVIRONMENTAL Environmental & Engineering Services

Boring Log .

Project No.: 01-5303-3-003
Boring No.: S-1
Project Name: Revere Dock
Date Drilled: 2/12/2020
Facility ID#:
Drill Rig: Cascade Sonic
Logged By: JP/JB
Sampling Method: GRAB

SUBSURFACE PROFILE			SAMPLE			
Depth (ft.)		Description and Comments	Sample # Depth	XRF / GEIGER	PID (ppm)	No Well Installed
		WATER LEVEL ~ 25'				
		Bottom Surface				
0		***CL- (Soft) SANDY (saturated)*** Collapsed material, with some brick debris, trace gravel		ND	0.0	
				ND	0.0	
2				ND	0.0	
				ND	0.0	
4			SS-1 4.0 ~ 5.0'	ND	0.0	
		CL- (Soft) CLAY (saturated) Grey		ND	0.0	
6				ND	0.0	
			SS-2 5.0 ~ 10.0'	ND	0.0	
8				ND	0.0	
				ND	0.0	
10						

Completion Notes: EOB @ 10' Below bottom surface

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Boring Log .

Project No.: 01-5303-3-003
Boring No.: S-2
Project Name: Revere Dock
Date Drilled: 2/12/2020
Facility ID#:
Drill Rig: Cascade Sonic
Logged By: JP/JB
Sampling Method: GRAB

SUBSURFACE PROFILE			SAMPLE			
Depth (ft.)		Description and Comments	Sample # Depth	XRF / GEIGER	PID (ppm)	No Well Installed
		WATER LEVEL ~ 12-15' Bottom Surface				
0		***LARGE DEBRIS (saturated)*** Wood, concrete, no sample material		ND	0.0	
				ND	0.0	
2				ND	0.0	
				ND	0.0	
4				ND	0.0	
		CL- (Soft) SANDY CLAY (saturated) Grey, with trace wood, concrete and brick debris	SS-1 5.0 ~ 7.0'	ND	0.0	
6				ND	0.0	
		CL- (Soft) CLAY (saturated) Grey		ND	0.0	
8				ND	0.0	
			SS-2 7.0 ~ 12.0'	ND	0.0	
10				ND	0.0	
				ND	0.0	
12						

Completion Notes: EOB @ 12' Below bottom surface

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Boring Log .

Project No.: 01-5303-3-003
Boring No.: S-3
Project Name: Revere Dock
Date Drilled: 2/13/2020
Facility ID#:
Drill Rig: Cascade Sonic
Logged By: JP/JB
Sampling Method: GRAB

PM ENVIRONMENTAL

SUBSURFACE PROFILE			SAMPLE			
Depth (ft.)		Description and Comments	Sample # Depth	XRF / GEIGER	PID (ppm)	No Well Installed
		WATER LEVEL ~ 6' Bottom Surface				
0		***SP- SAND (saturated)*** Brown, fine to medium, with some concrete and gravel; wood at 4' large		ND	0.0	
				ND	0.0	
2				ND	0.0	
			SS-1 3.0 ~ 4.0'	ND	0.0	
4		***LARGE WOOD/SOLID (saturated)*** Approximate depth to 10'		ND	0.0	
				ND	0.0	
6				ND	0.0	
			SS-2 7.0 ~ 8.0'	ND	0.0	
8				ND	0.0	
				ND	0.0	
10		***CL- (Soft) CLAY (saturated)*** Grey, some organics	SS-3 10.0 ~ 11.0'	ND	0.0	
			SS-4 11.0 ~ 12.0'	ND	0.0	
12			SS-5 12.0 ~ 13.0'	ND	0.0	
			SS-6 13.0 ~ 14.0'	ND	0.0	
14			SS-7 14.0 ~ 15.0'	ND	0.0	
16						

Completion Notes: EOB @ 15' Below bottom surface

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Boring Log .

Project No.: 01-5303-3-003
Boring No.: S-4
Project Name: Revere Dock
Date Drilled: 2/13/2020
Facility ID#:
Drill Rig: Cascade Sonic
Logged By: JP/JB
Sampling Method: GRAB

SUBSURFACE PROFILE			SAMPLE			
Depth (ft.)		Description and Comments	Sample # Depth	XRF / GEIGER	PID (ppm)	No Well Installed
		WATER LEVEL ~ 12' Bottom Surface				
0		***CL- SANDY CLAY (saturated)*** Brown, with some wood, concrete, brick, gravel		ND	0.0	
				ND	0.0	
2			SS-1 2.0 ~ 3.0'	ND	0.0	
				ND	0.0	
4				ND	0.0	
				ND	0.0	
6				ND	0.0	
			SS-2 7.0 ~ 8.0'	ND	0.0	
8				ND	0.0	
10		***CL- (Soft) CLAY (saturated)*** Grey	SS-3 10.0 ~ 11.0'	ND	0.0	
			SS-4 11.0 ~ 12.0'	ND	0.0	
12			SS-5 12.0 ~ 13.0'	ND	0.0	
			SS-6 13.0 ~ 14.0'	ND	0.0	
14			SS-7 14.0 ~ 15.0'	ND	0.0	
16						

Completion Notes: EOB @ 15' Below bottom surface

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Boring Log .

Project No.: 01-5303-3-003
Boring No.: S-5
Project Name: Revere Dock
Date Drilled: 2/12/2020
Facility ID#:
Drill Rig: Cascade Sonic
Logged By: JP/JB
Sampling Method: GRAB

SUBSURFACE PROFILE			SAMPLE			
Depth (ft.)		Description and Comments	Sample # Depth	XRF / GEIGER	PID (ppm)	No Well Installed
		WATER LEVEL ~ 12' Bottom Surface				
0		**CL- (Soft) SANDY CLAY (saturated)** With some brick, concrete, large gravel		ND	0.0	
				ND	0.0	
2			SS-1 2.0 ~ 3.0'	ND	0.0	
		CONCRETE		ND	0.0	
4				ND	0.0	
				ND	0.0	
6		**NO RECOVERY**		ND	0.0	
				ND	0.0	
8				ND	0.0	
				ND	0.0	
10				ND	0.0	
				ND	0.0	
12		**CL- (Soft) SANDY CLAY (saturated)** With some concrete, brick debris, and gravel		ND	0.0	
				ND	0.0	
14			SS-2 14.0 ~ 15.0'	ND	0.0	
				ND	0.0	
16				ND	0.0	
		CL- (Very Soft) CLAY (saturated) Grey		ND	0.0	
18				ND	0.0	
			SS-3 17.0 ~ 22.0'	ND	0.0	
20				ND	0.0	
				ND	0.0	
22						

Completion Notes: EOB @ 22' Below bottom surface

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Boring Log .

Project No.: 01-5303
Boring No.: S-6
Project Name: Revere Dock
Date Drilled: 2/13/2020
Facility ID#:
Drill Rig: Cascade Sonic
Logged By: JP/JB
Sampling Method: GRAB

PM ENVIRONMENTAL

SUBSURFACE PROFILE			SAMPLE			
Depth (ft.)		Description and Comments	Sample # Depth	XRF / GEIGER	PID (ppm)	No Well Installed
		WATER LEVEL ~ 10-12' Bottom Surface				
0		***SP- GRAVELLY SAND (saturated)*** Wood and concrete debris, fine to medium		ND	0.0	
				ND	0.0	
2				ND	0.0	
		CL- (Soft) SANDY CLAY With some large gravel, concrete	SS-1 3.0 ~ 4.0'	ND	0.0	
4				ND	0.0	
		LARGE WOOD/SOLID		ND	0.0	
6				ND	0.0	
				ND	0.0	
8			SS-2 8.0 ~ 9.0'	ND	0.0	
				ND	0.0	
10				ND	0.0	
				ND	0.0	
12		***CL- (Soft) CLAY (saturated)*** Grey	SS-3 12.0 ~ 13.0'	ND	0.0	
			SS-4 13.0 ~ 14.0'	ND	0.0	
14			SS-5 14.0 ~ 15.0'	ND	0.0	
			SS-6 15.0 ~ 16.0'	ND	0.0	
16			SS-7 16.0 ~ 17.0'	ND	0.0	
18						

Completion Notes: EOB @ 17' Below bottom surface

1. The indicated stratification lines are approximate in situ.
   The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Boring Log .

Project No.: 01-5303-3-003
Boring No.: S-7
Project Name: Revere Dock
Date Drilled: 2/13/2020
Facility ID#:
Drill Rig: Cascade Sonic
Logged By: JP/JB
Sampling Method: GRAB

SUBSURFACE PROFILE			SAMPLE			
Depth (ft.)		Description and Comments	Sample # Depth	XRF / GEIGER	PID (ppm)	No Well Installed
		WATER LEVEL ~ 20' Bottom Surface				
0		**GRAVEL, BRICK, CONCRETE**		ND	0.0	
				ND	0.0	
2		**SP- SAND (saturated)** Medium, with some gravel, brick, wood, and concrete debris	SS-1 2.0 ~ 3.0'	ND	0.0	
				ND	0.0	
4				ND	0.0	
				ND	0.0	
6				ND	0.0	
				ND	0.0	
8			SS-2 8.0 ~ 8.0'	ND	0.0	
				ND	0.0	
10		**CL- (Soft) CLAY (saturated)** Grey, some gravel	SS-3 10.0 ~ 11.0'	ND	0.0	
			SS-4 11.0 ~ 12.0'	ND	0.0	
12		**CL- (Soft) CLAY (saturated)** Grey, trace gravel	SS-5 12.0 ~ 13.0'	ND	0.0	
			SS-6 13.0 ~ 14.0'	ND	0.0	
14			SS-7 14.0 ~ 15.0'	ND	0.0	
16						

Completion Notes: EOB @ 15' Below bottom surface

1. The indicated stratification lines are approximate in situ.
   The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Boring Log .

Project No.: 01-5303-3-003
Boring No.: S-8
Project Name: Revere Dock
Date Drilled: 2/12/2020
Facility ID#:
Drill Rig: Cascade Sonic
Logged By: JP/JB
Sampling Method: GRAB

SUBSURFACE PROFILE			SAMPLE			
Depth (ft.)		Description and Comments	Sample # Depth	XRF / GEIGER	PID (ppm)	No Well Installed
		WATER LEVEL ~ 27'				
		Bottom Surface				
0		***CL- (Soft) SANDY CLAY (saturated*** With some concrete, and sand		ND	0.0	
				ND	0.0	
2			SS-1 2.0 ~ 3.0'	ND	0.0	
		CL- (Soft) CLAY (saturated) Grey		ND	0.0	
4				ND	0.0	
			SS-2 3.0 ~ 8.0'	ND	0.0	
6				ND	0.0	
				ND	0.0	
8						

Completion Notes: EOB @ 8' Below bottom surface

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Boring Log .

Project No.: 01-5303-3-003
Boring No.: S-8R
Project Name: Revere Dock
Date Drilled: 02/2020
Facility ID#:
Drill Rig: Cascade Sonic
Logged By: JP/JB
Sampling Method: GRAB

SUBSURFACE PROFILE			SAMPLE			
Depth (ft.)		Description and Comments	Sample # Depth	XRF / GEIGER	PID (ppm)	No Well Installed
		WATER LEVEL ~ 27' Bottom Surface				
0		***CL- (Soft) SANDY CLAY (saturated*** With some concrete and sand	SS-1 0.0 ~ 1.0'	ND	0.0	
			SS-2 1.0 ~ 2.0'	ND	0.0	
2			SS-3 2.0 ~ 3.0'	ND	0.0	
		CL- (Soft) CLAY (saturated) Grey	SS-4 3.0 ~ 4.0'	ND	0.0	
4			SS-5 4.0 ~ 5.0'	ND	0.0	
				ND	0.0	
6				ND	0.0	
				ND	0.0	
8						

Completion Notes: EOB @ 8' Below bottom surface

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Boring Log .

Project No.: 01-5303-3-003
Boring No.: S-9
Project Name: Revere Dock
Date Drilled: 2/10/2020
Facility ID#:
Drill Rig: Cascade Sonic
Logged By: JP/JB
Sampling Method: GRAB

SUBSURFACE PROFILE			SAMPLE			
Depth (ft.)		Description and Comments	Sample # Depth	XRF / GEIGER	PID (ppm)	No Well Installed
		WATER LEVEL ~ 33'				
		Bottom Surface				
0		***GW- GRAVEL (saturated)*** With some brick debris and sand		ND	0.0	
				ND	0.0	
2		***CL- (Very Soft) CLAY (saturated)*** Grey	SS-1 0.0 ~ 5.0'	ND	0.0	
				ND	0.0	
4				ND	0.0	
				ND	0.0	
6				ND	0.0	
8						

Completion Notes: EOB @ 7' Below bottom surface

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Boring Log .

Project No.: 01-5303-3-003
Boring No.: S-9R
Project Name: Revere Dock
Date Drilled: 2/17/2020
Facility ID#:
Drill Rig: Cascade Sonic
Logged By: JP/JB
Sampling Method: GRAB

SUBSURFACE PROFILE			SAMPLE			
Depth (ft.)		Description and Comments	Sample # Depth	XRF / GEIGER	PID (ppm)	No Well Installed
		WATER LEVEL ~ 33'				
		Bottom Surface				
0		***GW- GRAVEL (saturated)*** With some brick debris and sand	SS-1 0.0 ~ 1.0'	ND	0.0	
			SS-2 1.0 ~ 2.0'	ND	0.0	
2		***CL- (Very Soft) CLAY (saturated)*** Grey	SS-3 2.0 ~ 3.0'	ND	0.0	
			SS-4 3.0 ~ 4.0'	ND	0.0	
4			SS-5 4.0 ~ 5.0'	ND	0.0	
				ND	0.0	
6				ND	0.0	
8						

Completion Notes: EOB @ 7' Below bottom surface

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Boring Log .

Project No.: 01-5303-3-003
Boring No.: S-10
Project Name: Revere Dock
Date Drilled: 2/11/2020
Facility ID#:
Drill Rig: Cascade Sonic
Logged By: JP/JB
Sampling Method: GRAB

SUBSURFACE PROFILE			SAMPLE			
Depth (ft.)		Description and Comments	Sample # Depth	XRF / GEIGER	PID (ppm)	No Well Installed
		WATER LEVEL ~ 33'				
		Bottom Surface				
0		***CL- SANDY CLAY (saturated)*** Trace wood, concrete, coal, little recovery				
		CL- (Very Soft) CLAY (saturated) Grey		ND	0.0	
				ND	0.0	
2			SS-1 0.0 ~ 5.0'	ND	0.0	
				ND	0.0	
4				ND	0.0	
6						

Completion Notes: EOB @ 5' Below bottom surface

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Boring Log .

Project No.: 01-5303-3-003
Boring No.: S-10R
Project Name: Revere Dock
Date Drilled: 2/17/2020
Facility ID#:
Drill Rig: Cascade Sonic
Logged By: JP/JB
Sampling Method: GRAB

SUBSURFACE PROFILE			SAMPLE			
Depth (ft.)		Description and Comments	Sample # Depth	XRF / GEIGER	PID (ppm)	No Well Installed
		WATER LEVEL ~ 33'				
		Bottom Surface				
0		***CL- SANDY CLAY (saturated)*** Trace wood, concrete	SS-1 0.0 ~ 1.0'	ND	0.0	
		CL- (Very Soft) CLAY (saturated) Grey				
			SS-2 1.0 ~ 2.0'	ND	0.0	
2			SS-3 2.0 ~ 3.0'	ND	0.0	
			SS-4 3.0 ~ 4.0'	ND	0.0	
4			SS-5 4.0 ~ 5.0'	ND	0.0	
6						

Completion Notes: EOB @ 5' Below bottom surface

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Boring Log .

Project No.: 01-5303-3-003
Boring No.: S-11
Project Name: Revere Dock
Date Drilled: 2/11/2020
Facility ID#:
Drill Rig: Cascade Sonic
Logged By: JP/JB
Sampling Method: GRAB

SUBSURFACE PROFILE			SAMPLE			
Depth (ft.)		Description and Comments	Sample # Depth	XRF / GEIGER	PID (ppm)	No Well Installed
		WATER LEVEL ~ 30' Bottom Surface				
0		***CL- (Soft) SANDY CLAY (saturated)*** Grey, with trace brick and concrete debris		ND	0.0	
				ND	0.0	
2			SS-1 0.0 ~ 5.0'	ND	0.0	
				ND	0.0	
4				ND	0.0	
		CL- (Soft) CLAY (saturated) Grey		ND	0.0	
6				ND	0.0	
			SS-2 5.0 ~ 10.0'	ND	0.0	
8				ND	0.0	
				ND	0.0	
10						

Completion Notes: EOB @ 10' Below bottom surface

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Boring Log .

Project No.: 01-5303-3-003
Boring No.: S-11R
Project Name: Revere Dock
Date Drilled: 2/13/2020
Facility ID#:
Drill Rig: Cascade Sonic
Logged By: JP/JB
Sampling Method: GRAB

SUBSURFACE PROFILE			SAMPLE			
Depth (ft.)		Description and Comments	Sample # Depth	XRF / GEIGER	PID (ppm)	No Well Installed
		WATER LEVEL ~ 30' Bottom Surface				
0		***CL- (Soft) SANDY CLAY (saturated)*** Grey, with trace brick and concrete debris		ND	0.0	
				ND	0.0	
2				ND	0.0	
				ND	0.0	
4				ND	0.0	
		CL- (Soft) CLAY (saturated) Grey	SS-1 5.0 ~ 6.0'	ND	0.0	
6			SS-2 6.0 ~ 7.0'	ND	0.0	
			SS-3 7.0 ~ 8.0'	ND	0.0	
8			SS-4 8.0 ~ 9.0'	ND	0.0	
			SS-5 9.0 ~ 10.0'	ND	0.0	
10						

Completion Notes: EOB @ 10' Below bottom surface

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Boring Log .

Project No.: 01-5303
Boring No.: S-12
Project Name: Revere Dock
Date Drilled: 2/11/2020
Facility ID#:
Drill Rig: Cascade Sonic
Logged By: JP/JB
Sampling Method: GRAB

SUBSURFACE PROFILE			SAMPLE			
Depth (ft.)		Description and Comments	Sample # Depth	XRF / GEIGER	PID (ppm)	No Well Installed
		WATER LEVEL ~ 33'				
0		Bottom Surface ***CL- (Soft) SANDY CLAY (saturated)*** Fine, with trace glass, brick, concrete		ND	0.0	
		CL- (Very Soft) CLAY (saturated) Grey		ND	0.0	
2			SS-1 0.0 ~ 5.0'	ND	0.0	
				ND	0.0	
4				ND	0.0	
				ND	0.0	
6						

Completion Notes: EOB @ 6' Below bottom surface

1. The indicated stratification lines are approximate in situ.
   The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Boring Log .

Project No.: 01-5303
Boring No.: S-12R
Project Name: Revere Dock
Date Drilled: 2/17/2020
Facility ID#:
Drill Rig: Cascade Sonic
Logged By: JP/JB
Sampling Method: GRAB

SUBSURFACE PROFILE			SAMPLE			
Depth (ft.)		Description and Comments	Sample # Depth	XRF / GEIGER	PID (ppm)	No Well Installed
		WATER LEVEL ~ 33'				
		Bottom Surface				
0		***CL- (Soft) SANDY CLAY (saturated)*** Fine, with trace glass, brick, concrete	SS-1 0.0 ~ 1.0'	ND	0.0	
		CL- (Very Soft) CLAY (saturated) Grey	SS-2 1.0 ~ 2.0'	ND	0.0	
2			SS-3 2.0 ~ 3.0'	ND	0.0	
			SS-4 3.0 ~ 4.0'	ND	0.0	
4			SS-5 4.0 ~ 5.0'	ND	0.0	
				ND	0.0	
6						

Completion Notes: EOB @ 6' Below bottom surface

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Boring Log .

Project No.: 01-5303-3-003
Boring No.: S-13
Project Name: Revere Dock
Date Drilled: 2/11/2020
Facility ID#:
Drill Rig: Cascade Sonic
Logged By: JP/JB
Sampling Method: GRAB

SUBSURFACE PROFILE			SAMPLE			
Depth (ft.)		Description and Comments	Sample # Depth	XRF / GEIGER	PID (ppm)	No Well Installed
		WATER LEVEL ~ 29'				
		Bottom Surface				
0		***SC- CLAYEY SAND (saturated)*** With trace gravel, brick concrete debris				
		CL- (Soft) CLAY (saturated) Grey		ND	0.0	
				ND	0.0	
2			SS-1 0.0 ~ 5.0'	ND	0.0	
				ND	0.0	
4				ND	0.0	
				ND	0.0	
6		***NO RECOVERY***				
8						
10						

Completion Notes: EOB @ 10' Below bottom surface

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Boring Log .

Project No.: 01-5303-3-003
Boring No.: S-13R
Project Name: Revere Dock
Date Drilled: 2/11/2020
Facility ID#:
Drill Rig: Cascade Sonic
Logged By: JP/JB
Sampling Method: GRAB

SUBSURFACE PROFILE			SAMPLE			
Depth (ft.)		Description and Comments	Sample # Depth	XRF / GEIGER	PID (ppm)	No Well Installed
		WATER LEVEL ~ 29'				
		Bottom Surface				
0		***SC- CLAYEY SAND (saturated)*** With trace gravel, brick concrete	SS-1 0.0 ~ 1.0'	ND	0.0	
		CL- (Soft) CLAY (saturated) Grey	SS-2 1.0 ~ 2.0'	ND	0.0	
2			SS-3 2.0 ~ 3.0'	ND	0.0	
			SS-4 3.0 ~ 4.0'	ND	0.0	
4			SS-5 4.0 ~ 5.0'	ND	0.0	
				ND	0.0	
6						

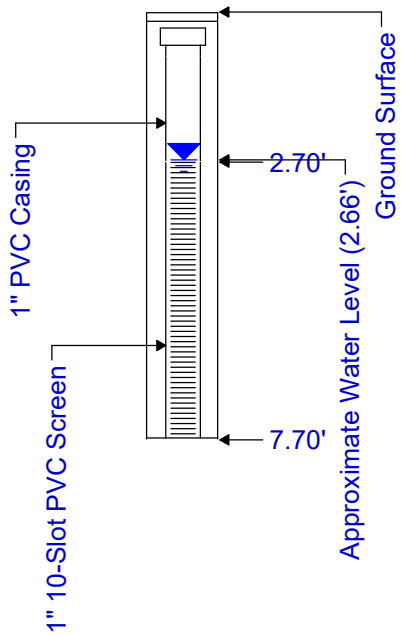
Completion Notes: EOB @ 6' Below bottom surface

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.

Well Log .

Project No.: 01-5303
Well No.: SB/TMW-12
Project Name: Revere Dock
Date Drilled: 2/10/2020
Facility ID#:
Drill Rig: 6712 DT
Logged By: J. Beumel
Sampling Method: GRAB

SUBSURFACE PROFILE			SAMPLE			
Depth (ft.)		Description and Comments	Sample # Depth	XRF / GEIGER	PID (ppm)	Groundwater Well Completion Details
		Ground Surface				
0		***GRAVEL*** Cobble size		ND	0.0	
		SW- (Loose) SAND (damp) Dark grey, medium to fine, asphalt debris		ND	0.3	
2				ND	0.3	
		SW- (Loose) SAND (damp) Yellowish-orange, medium to fine		ND	0.0	
4			SS-1 4.0 ~ 5.0'	ND	0.0	
		CL- (Medium Stiff) SANDY CLAY (damp) Trace gravel		ND	0.0	
6		***SW- SAND (saturated)*** Dark brown, fine, some gravel		ND	0.0	
				ND	0.0	
8				ND	0.0	
		GW- GRAVEL Brown, sand, fine	SS-2 9.0 ~ 10.0'	ND	0.1	
10				ND	0.1	
		SP- CLAYEY SAND (saturated) Dark brown, fine		ND	0.2	
12				ND	0.0	
		CL- (Very Soft) SANDY CLAY (saturated) Grey, fine		ND	0.0	
14				ND	0.0	
				ND	0.0	
16				ND	0.0	
				ND	0.0	
18				ND	0.0	
				ND	0.0	
20						



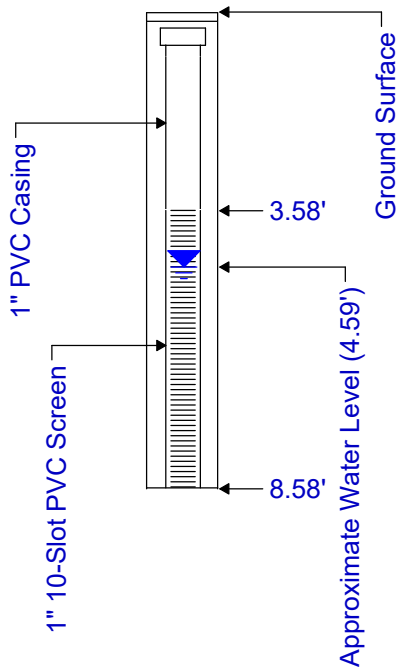
Completion Notes: EOB @ 20'

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted

Well Log .

Project No.: 01-5303
Well No.: SB/TMW-13
Project Name: Revere Dock
Date Drilled: 2/10/2020
Facility ID#:
Drill Rig: 6712 DT
Logged By: J. Beumel
Sampling Method: GRAB

SUBSURFACE PROFILE			SAMPLE			
Depth (ft.)		Description and Comments	Sample # Depth	XRF / GEIGER	PID (ppm)	Groundwater Well Completion Details
		Ground Surface				
0		**GRAVEL** Cobble size		ND	0.0	
		SW- (Loose) SAND Dark brown, medium to fine, trace gravel		ND	0.0	
2		**SW- (Loose) SAND** Dark brown, medium to fine, trace gravel, brick debris		ND	0.1	
			SS-1	ND	0.1	
4		**GW- (Loose) GRAVEL** Brown, coarse, some sand	3.5 ~ 4.5'	ND	0.0	
		GW- GRAVEL (saturated) Coarse, some sand	SS-2 4.5 ~ 5.5'	ND	0.0	
6				ND	0.0	
				ND	0.0	
8				ND	0.0	
10				ND	1.1	
		SP- CLAYEY SAND (saturated) Dark brown, fine		ND	0.0	
12				ND	0.0	
				ND	0.0	
14				ND	0.0	
				ND	0.0	
16				ND	0.0	
				ND	0.0	
18				ND	0.0	
20				ND	0.0	



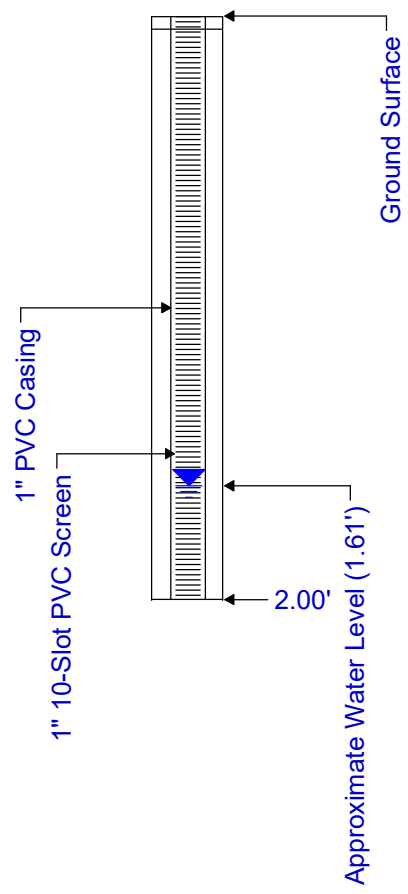
Completion Notes: EOB @ 20'

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted

Well Log .

Project No.: 01-5303
Well No.: SB/TMW-14
Project Name: Revere Dock
Date Drilled: 2/10/2020
Facility ID#:
Drill Rig: Hand Auger
Logged By: J. Beumel
Sampling Method: GRAB

SUBSURFACE PROFILE			SAMPLE			
Depth (ft.)		Description and Comments	Sample # Depth	XRF / GEIGER	PID (ppm)	Groundwater Well Completion Details
		Ground Surface				
0		***GRAVEL*** Cobble size				
		SW- (Loose) SAND Dark brown, medium to fine, with gravel		ND	0.0	
				ND	0.0	
			SS-1			
2			1.5 ~ 2.5'			
				ND	0.0	
4						



Completion Notes: EOB @ 3' Collapsed material, unable to remove large debris with Hand Auger

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted

Appendix C

PM ENVIRONMENTAL Environmental & Engineering Services

03-Mar-2020

Adam Patton
PM Environmental
4080 West 11 Mile Road
Berkley, MI 48072

Re: **Sediment Project 01-5303-3-0001** Work Order: **20021006**

Dear Adam,

ALS Environmental received 80 samples on 14-Feb-2020 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 285.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

Electronically approved by: Alex J. Csaszar

Alex J. Csaszar
Project Manager

ALS Group, USA

Date: 03-Mar-20

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: **20021006**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
20021006-01	S-7 2-3' TCLP	Tclp Extract		2/13/2020 10:45	2/14/2020 14:30	☐
20021006-02	S-7 8-9' TCLP	Tclp Extract		2/13/2020 10:50	2/14/2020 14:30	☐
20021006-03	S-7 10-11' TCLP	Tclp Extract		2/13/2020 11:15	2/14/2020 14:30	☐
20021006-04	S-7 11-12' TCLP	Tclp Extract		2/13/2020 11:20	2/14/2020 14:30	☐
20021006-05	S-7 12-13' TCLP	Tclp Extract		2/13/2020 11:25	2/14/2020 14:30	☐
20021006-06	S-7 13-14' TCLP	Tclp Extract		2/13/2020 11:30	2/14/2020 14:30	☐
20021006-07	S-7 14-15' TCLP	Tclp Extract		2/13/2020 11:35	2/14/2020 14:30	☐
20021006-08	S-6 3-4' TCLP	Tclp Extract		2/13/2020 12:35	2/14/2020 14:30	☐
20021006-09	S-6 8-9' TCLP	Tclp Extract		2/13/2020 12:50	2/14/2020 14:30	☐
20021006-10	S-6 12-13' TCLP	Tclp Extract		2/13/2020 12:55	2/14/2020 14:30	☐
20021006-11	S-6 13-14' TCLP	Tclp Extract		2/13/2020 13:00	2/14/2020 14:30	☐
20021006-12	S-6 14-15' TCLP	Tclp Extract		2/13/2020 13:05	2/14/2020 14:30	☐
20021006-13	S-6 15-16' TCLP	Tclp Extract		2/13/2020 13:10	2/14/2020 14:30	☐
20021006-14	S-6 16-17' TCLP	Tclp Extract		2/13/2020 13:15	2/14/2020 14:30	☐
20021006-15	S-11R 5-6' TCLP	Tclp Extract		2/13/2020 13:30	2/14/2020 14:30	☐
20021006-16	S-11R 6-7' TCLP	Tclp Extract		2/13/2020 13:35	2/14/2020 14:30	☐
20021006-17	S-11R 7-8' TCLP	Tclp Extract		2/13/2020 13:40	2/14/2020 14:30	☐
20021006-18	S-11R 8-9' TCLP	Tclp Extract		2/13/2020 13:45	2/14/2020 14:30	☐
20021006-19	S-11R 9-10' TCLP	Tclp Extract		2/13/2020 13:50	2/14/2020 14:30	☐
20021006-20	S-13R 0-1' TCLP	Tclp Extract		2/13/2020 14:00	2/14/2020 14:30	☐
20021006-21	S-13R 1-2' TCLP	Tclp Extract		2/13/2020 14:05	2/14/2020 14:30	☐
20021006-22	S-13R 2-3' TCLP	Tclp Extract		2/13/2020 14:10	2/14/2020 14:30	☐
20021006-23	S-13R 3-4' TCLP	Tclp Extract		2/13/2020 14:15	2/14/2020 14:30	☐
20021006-24	S-13R 4-5' TCLP	Tclp Extract		2/13/2020 14:20	2/14/2020 14:30	☐
20021006-25	S-3 3-4' TCLP	Tclp Extract		2/13/2020 16:00	2/14/2020 14:30	☐
20021006-26	S-3 7-8' TCLP	Tclp Extract		2/13/2020 16:05	2/14/2020 14:30	☐
20021006-27	S-3 10-11' TCLP	Tclp Extract		2/13/2020 16:10	2/14/2020 14:30	☐
20021006-28	S-3 11-12' TCLP	Tclp Extract		2/13/2020 16:15	2/14/2020 14:30	☐
20021006-29	S-3 12-13' TCLP	Tclp Extract		2/13/2020 16:20	2/14/2020 14:30	☐
20021006-30	S-3 13-14' TCLP	Tclp Extract		2/13/2020 16:25	2/14/2020 14:30	☐
20021006-31	S-3 14-15' TCLP	Tclp Extract		2/13/2020 16:30	2/14/2020 14:30	☐
20021006-32	S-4 2-3' TCLP	Tclp Extract		2/13/2020 15:10	2/14/2020 14:30	☐
20021006-33	S-4 7-8' TCLP	Tclp Extract		2/13/2020 15:15	2/14/2020 14:30	☐
20021006-34	S-4 10-11' TCLP	Tclp Extract		2/13/2020 15:20	2/14/2020 14:30	☐
20021006-35	S-4 11-12' TCLP	Tclp Extract		2/13/2020 15:25	2/14/2020 14:30	☐
20021006-36	S-4 12-13' TCLP	Tclp Extract		2/13/2020 15:30	2/14/2020 14:30	☐
20021006-37	S-4 13-14' TCLP	Tclp Extract		2/13/2020 15:35	2/14/2020 14:30	☐
20021006-38	S-4 14-15' TCLP	Tclp Extract		2/13/2020 15:40	2/14/2020 14:30	☐
20021006-39	Trip Blank #3	Soil		2/13/2020 08:45	2/14/2020 14:30	☐

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: **20021006**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
20021006-40	A6	Soil		2/13/2020 12:00	2/14/2020 14:30	☐
20021006-41	A7	Soil		2/13/2020 12:00	2/14/2020 14:30	☐
20021006-42	S-7 2-3'	Soil		2/13/2020 10:45	2/14/2020 14:30	☐
20021006-43	S-7 8-9'	Soil		2/13/2020 10:50	2/14/2020 14:30	☐
20021006-44	S-7 10-11'	Soil		2/13/2020 11:15	2/14/2020 14:30	☐
20021006-45	S-7 11-12'	Soil		2/13/2020 11:20	2/14/2020 14:30	☐
20021006-46	S-7 12-13'	Soil		2/13/2020 11:25	2/14/2020 14:30	☐
20021006-47	S-7 13-14'	Soil		2/13/2020 11:30	2/14/2020 14:30	☐
20021006-48	S-7 14-15'	Soil		2/13/2020 11:35	2/14/2020 14:30	☐
20021006-49	S-6 3-4'	Soil		2/13/2020 12:35	2/14/2020 14:30	☐
20021006-50	S-6 8-9'	Soil		2/13/2020 12:50	2/14/2020 14:30	☐
20021006-51	S-6 12-13'	Soil		2/13/2020 12:55	2/14/2020 14:30	☐
20021006-52	S-6 13-14'	Soil		2/13/2020 13:00	2/14/2020 14:30	☐
20021006-53	S-6 14-15'	Soil		2/13/2020 13:05	2/14/2020 14:30	☐
20021006-54	S-6 15-16'	Soil		2/13/2020 13:10	2/14/2020 14:30	☐
20021006-55	S-6 16-17'	Soil		2/13/2020 13:15	2/14/2020 14:30	☐
20021006-56	S-11R 5-6'	Soil		2/13/2020 13:30	2/14/2020 14:30	☐
20021006-57	S-11R 6-7'	Soil		2/13/2020 13:35	2/14/2020 14:30	☐
20021006-58	S-11R 7-8'	Soil		2/13/2020 13:40	2/14/2020 14:30	☐
20021006-59	S-11R 8-9'	Soil		2/13/2020 13:45	2/14/2020 14:30	☐
20021006-60	S-11R 9-10'	Soil		2/13/2020 13:50	2/14/2020 14:30	☐
20021006-61	S-13R 0-1'	Soil		2/13/2020 14:00	2/14/2020 14:30	☐
20021006-62	S-13R 1-2'	Soil		2/13/2020 14:05	2/14/2020 14:30	☐
20021006-63	S-13R 2-3'	Soil		2/13/2020 14:10	2/14/2020 14:30	☐
20021006-64	S-13R 3-4'	Soil		2/13/2020 14:15	2/14/2020 14:30	☐
20021006-65	S-13R 4-5'	Soil		2/13/2020 14:20	2/14/2020 14:30	☐
20021006-66	S-3 3-4'	Soil		2/13/2020 16:00	2/14/2020 14:30	☐
20021006-67	S-3 7-8'	Soil		2/13/2020 16:05	2/14/2020 14:30	☐
20021006-68	S-3 10-11'	Soil		2/13/2020 16:10	2/14/2020 14:30	☐
20021006-69	S-3 11-12'	Soil		2/13/2020 16:15	2/14/2020 14:30	☐
20021006-70	S-3 12-13'	Soil		2/13/2020 16:20	2/14/2020 14:30	☐
20021006-71	S-3 13-14'	Soil		2/13/2020 16:25	2/14/2020 14:30	☐
20021006-72	S-3 14-15'	Soil		2/13/2020 16:30	2/14/2020 14:30	☐
20021006-73	S-4 2-3'	Soil		2/13/2020 15:10	2/14/2020 14:30	☐
20021006-74	S-4 7-8'	Soil		2/13/2020 15:15	2/14/2020 14:30	☐
20021006-75	S-4 10-11'	Soil		2/13/2020 15:20	2/14/2020 14:30	☐
20021006-76	S-4 11-12'	Soil		2/13/2020 15:25	2/14/2020 14:30	☐
20021006-77	S-4 12-13'	Soil		2/13/2020 15:30	2/14/2020 14:30	☐
20021006-78	S-4 13-14'	Soil		2/13/2020 15:35	2/14/2020 14:30	☐
20021006-79	S-4 14-15'	Soil		2/13/2020 15:40	2/14/2020 14:30	☐
20021006-80	A6 TCLP	Tclp Extract		2/13/2020 12:00	2/14/2020 14:30	☐

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006

Case Narrative

Samples for the above noted Work Order were received on 02/14/2020. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting. A copy of the laboratory's scope of accreditation is available upon request.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:

Batch 152017, Method VOC_8260_S, Samples 20021006-56A MS and MSD: The MS and MSD recoveries were above the upper control limits for Acetone. The reported result in the parent sample was non-detect, therefore no qualification is necessary.

Batch 152017, Method VOC_8260_S, Samples 20021006-56A MS and MSD: The MS and MSD recoveries were below the lower control limits for Bromomethane and trans-1,4-Dichloro-2-butene. The reported results in the parent sample may be biased low for these analytes.

Batch 152017, Method VOC_8260_S, Sample 20021006-56A MSD: The MSD recovery was outside of the control limits for Trichloroethene. However, the MS recovery and the RPD between the MS and MSD was in control. No qualification is required for this analyte.

Batch 152043, Method VOC_8260_S, Sample LCS-152043: The LCS recoveries were above the upper control limits for Dichlorodifluoromethane, Methyl iodide and Methyl tert-butyl ether. All the sample results in the batch were non-detect. No qualification is necessary for these analytes.

Batch 152043, Method VOC_8260_S, Samples 20021006-65A MS and MSD: The MS and MSD recoveries were below the lower control limits for several analytes (See QC Report). The reported results in the parent sample may be biased low for these analytes.

Batch 152043, Method VOC_8260_S, Sample 20021006-65A MS: The MS recovery was

outside of the control limits for 1,1,1-Tetrachloroethane. However, the MSD recovery and the RPD between the MS and MSD was in control. No qualification is required for this analyte.

Batch 152043, Method VOC_8260_S, Samples 20021006-65A MS and MSD: The MS and MSD recoveries were above the upper control limits for several analytes (See QC Report). The reported results in the parent sample was non-detect, therefore no qualification is necessary.

Batch 152043, Method VOC_8260_S, Sample 20021006-65A MSD: The RPDs between the MS and MSD were outside the control limits for several analytes (See QC Report). The reported results in the parent sample should be considered estimated for these analytes.

Extractable Organics:

Batch 152049, Method PCBLVI_8082_S, Samples 20021006-46B, -59B, -60B, -61B, : One or more surrogate recoveries were below the lower control limits. The sample results may be biased low.
Matrix interference.

Batch 152167, Method PCBLVI_8082_S, Samples 20021006-76B and -77B: One or more surrogate recoveries were below the lower control limits. The sample results may be biased low.
Matrix interference.

Metals:

Batch 152124, Method ICP_6020_S, Sample 20021006-68B MS: The MS recoveries were outside of the control limits for several analytes (See QC Report). However, the MSD recoveries and the RPDs between the MS and MSD were in control. No qualification is required for these analytes.

Batch 152124, Method ICP_6020_S, Samples 20021006-68B MS and MSD: The MS and MSD recoveries were below the lower control limits for Copper. The reported result in the parent sample may be biased low for this analyte.

Batch 152124, Method ICP_6020_S, Samples 20021006-68B MS and MSD: The MS and MSD recoveries were outside of the control limits for Zinc; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte.

Wet Chemistry:

Batch 151982, Method BOD_5210B_S, Sample 20021006-40B DUP: The RPD between the

sample and its duplicate was outside the control limits for BOD. The reported sample result should be considered estimated for this analyte.

Batch 152013, Method PH_9045_S, Samples 20021006-73B and -74B: Possible bias due to sodium error at pH > 10. A low sodium electrode is not used in the measurement process.

Batch 152030, Method PASC_365.1_S, Samples 20021006-73B MS and MSD: The MS and MSD recoveries were outside of the control limits for Phosphorus; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte.

Batch 152059, Method PASC_365.1_S, Samples 20021006-55B MS and MSD: The MS and MSD recoveries were outside of the control limits for Phophorus; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte.

Batch 152136, Method PASC_365.1_S, Samples 20021006-41B MS and MSD: The MS and MSD recoveries were outside of the control limits for Phosphorus; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte.

Batch 152136, Method PASC_365.1_S, Samples 20021006-56B MS and MSD: The MS and MSD recoveries were outside of the control limits for Phosphorus; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte.

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
% of sample	Percent of Sample
°C	Degrees Celcius
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
s.u.	Standard Units

ALS Group, USA

Date: *03-Mar-20*

Client:	PM Environmental		
Project:	Sediment Project 01-5303-3-0001	**Work Order:**	20021006
Sample ID:	S-7 2-3' TCLP	**Lab ID:**	20021006-01
Collection Date:	2/13/2020 10:45 AM	**Matrix:**	TCLP EXTRACT

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP METALS ANALYSIS BY ICP-MS			**SW6020B**		Prep: SW3015A 2/27/20 14:52	Analyst: **STP**
Chromium	ND		0.050	mg/L	1	2/27/2020 09:35 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client:	PM Environmental		
Project:	Sediment Project 01-5303-3-0001	**Work Order:**	20021006
Sample ID:	S-7 8-9' TCLP	**Lab ID:**	20021006-02
Collection Date:	2/13/2020 10:50 AM	**Matrix:**	TCLP EXTRACT

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP METALS ANALYSIS BY ICP-MS			**SW6020B**		Prep: SW3015A 2/27/20 14:52	Analyst: **STP**
Lead	**0.16**		**0.050**	**mg/L**	1	2/27/2020 09:44 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client:	PM Environmental		
Project:	Sediment Project 01-5303-3-0001	**Work Order:**	20021006
Sample ID:	S-6 3-4' TCLP	**Lab ID:**	20021006-08
Collection Date:	2/13/2020 12:35 PM	**Matrix:**	TCLP EXTRACT

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP METALS ANALYSIS BY ICP-MS			**SW6020B**		Prep: SW3015A 2/27/20 14:52	Analyst: **STP**
Lead	ND		0.050	mg/L	1	2/27/2020 09:46 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client:	PM Environmental		
Project:	Sediment Project 01-5303-3-0001	**Work Order:**	20021006
Sample ID:	S-13R 0-1' TCLP	**Lab ID:**	20021006-20
Collection Date:	2/13/2020 02:00 PM	**Matrix:**	TCLP EXTRACT

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP METALS ANALYSIS BY ICP-MS			**SW6020B**		Prep: SW3015A 2/27/20 14:52	Analyst: **STP**
Lead	ND		0.050	mg/L	1	2/27/2020 09:47 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-3 3-4' TCLP
Collection Date: 2/13/2020 04:00 PM

Work Order: 20021006
Lab ID: 20021006-25
Matrix: TCLP EXTRACT

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP METALS ANALYSIS BY ICP-MS			**SW6020B**		Prep: SW3015A 2/27/20 14:52	Analyst: **STP**
Chromium	ND		0.050	mg/L	1	2/27/2020 09:49 PM
Lead	**0.29**		**0.050**	**mg/L**	1	2/27/2020 09:49 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-3 7-8' TCLP
Collection Date: 2/13/2020 04:05 PM

Work Order: 20021006
Lab ID: 20021006-26
Matrix: TCLP EXTRACT

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP METALS ANALYSIS BY ICP-MS			**SW6020B**		Prep: SW3015A 2/27/20 14:52	Analyst: **STP**
Chromium	ND		0.050	mg/L	1	2/27/2020 09:51 PM
Lead	**0.73**		**0.050**	**mg/L**	1	2/27/2020 09:51 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-4 2-3' TCLP
Lab ID: 20021006-32
Collection Date: 2/13/2020 03:10 PM
Matrix: TCLP EXTRACT

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP METALS ANALYSIS BY ICP-MS			**SW6020B**		Prep: SW3015A 2/27/20 14:52	Analyst: **STP**
Cadmium	**0.25**		**0.020**	**mg/L**	1	2/27/2020 09:53 PM
Lead	**0.28**		**0.050**	**mg/L**	1	2/27/2020 09:53 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-4 7-8' TCLP
Collection Date: 2/13/2020 03:15 PM

Work Order: 20021006
Lab ID: 20021006-33
Matrix: TCLP EXTRACT

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP METALS ANALYSIS BY ICP-MS			**SW6020B**		Prep: SW3015A 2/27/20 14:52	Analyst: **STP**
Cadmium	**1.2**		**0.020**	**mg/L**	1	2/27/2020 09:54 PM
Lead	**1.1**		**0.050**	**mg/L**	1	2/27/2020 09:54 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: Trip Blank #3
Lab ID: 20021006-39
Collection Date: 2/13/2020 08:45 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 11:29		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
1,1,1-Trichloroethane	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
1,1,2,2-Tetrachloroethane	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
1,1,2-Trichloroethane	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
1,1,2-Trichlorotrifluoroethane	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
1,1-Dichloroethane	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
1,1-Dichloroethene	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
1,2,3-Trichloropropane	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
1,2,4-Trichlorobenzene	ND		100	µg/Kg-dry	1	2/19/2020 10:29 PM
1,2,4-Trimethylbenzene	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
1,2-Dibromo-3-chloropropane	ND		100	µg/Kg-dry	1	2/19/2020 10:29 PM
1,2-Dibromoethane	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
1,2-Dichlorobenzene	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
1,2-Dichloroethane	ND		100	µg/Kg-dry	1	2/19/2020 10:29 PM
1,2-Dichloropropane	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
1,3,5-Trimethylbenzene	ND		100	µg/Kg-dry	1	2/19/2020 10:29 PM
1,3-Dichlorobenzene	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
1,4-Dichlorobenzene	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
2-Butanone	ND		200	µg/Kg-dry	1	2/19/2020 10:29 PM
2-Hexanone	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
2-Methylnaphthalene	ND		100	µg/Kg-dry	1	2/19/2020 10:29 PM
4-Methyl-2-pentanone	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
Acetone	ND		100	µg/Kg-dry	1	2/19/2020 10:29 PM
Acrylonitrile	ND		100	µg/Kg-dry	1	2/19/2020 10:29 PM
Benzene	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
Bromochloromethane	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
Bromodichloromethane	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
Bromoform	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
Bromomethane	ND		100	µg/Kg-dry	1	2/19/2020 10:29 PM
Carbon disulfide	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
Carbon tetrachloride	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
Chlorobenzene	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
Chloroethane	ND		100	µg/Kg-dry	1	2/19/2020 10:29 PM
Chloroform	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
Chloromethane	ND		100	µg/Kg-dry	1	2/19/2020 10:29 PM
cis-1,2-Dichloroethene	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
cis-1,3-Dichloropropene	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
Dibromochloromethane	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
Dibromomethane	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: Trip Blank #3
Lab ID: 20021006-39
Collection Date: 2/13/2020 08:45 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dichlorodifluoromethane	ND		100	µg/Kg-dry	1	2/19/2020 10:29 PM
Diethyl ether	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
Ethylbenzene	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
Hexachloroethane	ND		100	µg/Kg-dry	1	2/19/2020 10:29 PM
Isopropylbenzene	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
m,p-Xylene	ND		60	µg/Kg-dry	1	2/19/2020 10:29 PM
Methyl iodide	ND		500	µg/Kg-dry	1	2/19/2020 10:29 PM
Methyl tert-butyl ether	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
Methylene chloride	ND		250	µg/Kg-dry	1	2/19/2020 10:29 PM
Naphthalene	ND		100	µg/Kg-dry	1	2/19/2020 10:29 PM
n-Propylbenzene	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
o-Xylene	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
Styrene	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
Tetrachloroethene	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
Toluene	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
trans-1,2-Dichloroethene	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
trans-1,3-Dichloropropene	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
trans-1,4-Dichloro-2-butene	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
Trichloroethene	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
Trichlorofluoromethane	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
Vinyl acetate	ND		250	µg/Kg-dry	1	2/19/2020 10:29 PM
Vinyl chloride	ND		30	µg/Kg-dry	1	2/19/2020 10:29 PM
Xylenes, Total	ND		90	µg/Kg-dry	1	2/19/2020 10:29 PM
Surr: 1,2-Dichloroethane-d4	*112*		*70-130*	*%REC*	1	2/19/2020 10:29 PM
Surr: 4-Bromofluorobenzene	*97.4*		*70-130*	*%REC*	1	2/19/2020 10:29 PM
Surr: Dibromofluoromethane	*94.2*		*70-130*	*%REC*	1	2/19/2020 10:29 PM
Surr: Toluene-d8	*96.6*		*70-130*	*%REC*	1	2/19/2020 10:29 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: A6
Lab ID: 20021006-40
Collection Date: 2/13/2020 12:00 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/17/20 15:44		Analyst: **RM**
Aroclor 1016	ND		330	µg/Kg-dry	1	2/17/2020 11:49 PM
Aroclor 1221	ND		330	µg/Kg-dry	1	2/17/2020 11:49 PM
Aroclor 1232	ND		330	µg/Kg-dry	1	2/17/2020 11:49 PM
Aroclor 1242	ND		330	µg/Kg-dry	1	2/17/2020 11:49 PM
Aroclor 1248	ND		330	µg/Kg-dry	1	2/17/2020 11:49 PM
Aroclor 1254	ND		330	µg/Kg-dry	1	2/17/2020 11:49 PM
Aroclor 1260	ND		330	µg/Kg-dry	1	2/17/2020 11:49 PM
Aroclor 1262	ND		330	µg/Kg-dry	1	2/17/2020 11:49 PM
Aroclor 1268	ND		330	µg/Kg-dry	1	2/17/2020 11:49 PM
Surr: Decachlorobiphenyl	*60.4*		*40-140*	*%REC*	1	2/17/2020 11:49 PM
Surr: Tetrachloro-m-xylene	*63.2*		*45-124*	*%REC*	1	2/17/2020 11:49 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/19/20 14:43		Analyst: **RSH**
Mercury	**0.11**		**0.024**	**mg/Kg-dry**	1	2/19/2020 05:55 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:31		Analyst: **DSC**
Arsenic	**5.3**		**0.50**	**mg/Kg-dry**	1	2/18/2020 09:01 PM
Barium	**57**		**0.50**	**mg/Kg-dry**	1	2/18/2020 09:01 PM
Cadmium	**7.1**		**0.20**	**mg/Kg-dry**	1	2/18/2020 09:01 PM
Chromium	**19**		**0.50**	**mg/Kg-dry**	1	2/18/2020 09:01 PM
Copper	**1,000**		**50**	**mg/Kg-dry**	100	2/19/2020 04:37 PM
Lead	**130**		**0.50**	**mg/Kg-dry**	1	2/18/2020 09:01 PM
Nickel	**10**		**0.50**	**mg/Kg-dry**	1	2/18/2020 09:01 PM
Selenium	**1.6**		**0.50**	**mg/Kg-dry**	1	2/18/2020 09:01 PM
Silver	ND		0.50	mg/Kg-dry	1	2/18/2020 09:01 PM
Thorium	**1.8**		**0.50**	**mg/Kg-dry**	1	2/18/2020 09:01 PM
Uranium	**0.74**		**0.50**	**mg/Kg-dry**	1	2/18/2020 09:01 PM
Zinc	**840**		**100**	**mg/Kg-dry**	100	2/19/2020 04:37 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/19/20 18:03		Analyst: **EEW**
1-Methylnaphthalene	**16**		**5.1**	**µg/Kg-dry**	1	2/20/2020 12:14 PM
2-Chloronaphthalene	ND		5.1	µg/Kg-dry	1	2/20/2020 12:14 PM
2-Methylnaphthalene	ND		5.1	µg/Kg-dry	1	2/20/2020 12:14 PM
Acenaphthene	**14**		**5.1**	**µg/Kg-dry**	1	2/20/2020 12:14 PM
Acenaphthylene	ND		5.1	µg/Kg-dry	1	2/20/2020 12:14 PM
Anthracene	**13**		**5.1**	**µg/Kg-dry**	1	2/20/2020 12:14 PM
Benzo(a)anthracene	**17**		**5.1**	**µg/Kg-dry**	1	2/20/2020 12:14 PM
Benzo(a)pyrene	**13**		**5.1**	**µg/Kg-dry**	1	2/20/2020 12:14 PM
Benzo(b)fluoranthene	**14**		**5.1**	**µg/Kg-dry**	1	2/20/2020 12:14 PM
Benzo(g,h,i)perylene	**5.9**		**5.1**	**µg/Kg-dry**	1	2/20/2020 12:14 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: A6 **Lab ID:** 20021006-40
Collection Date: 2/13/2020 12:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.1	µg/Kg-dry	1	2/20/2020 12:14 PM
Chrysene	**20**		**5.1**	**µg/Kg-dry**	1	2/20/2020 12:14 PM
Dibenzo(a,h)anthracene	ND		5.1	µg/Kg-dry	1	2/20/2020 12:14 PM
Fluoranthene	**36**		**5.1**	**µg/Kg-dry**	1	2/20/2020 12:14 PM
Fluorene	**9.5**		**5.1**	**µg/Kg-dry**	1	2/20/2020 12:14 PM
Indeno(1,2,3-cd)pyrene	**6.2**		**5.1**	**µg/Kg-dry**	1	2/20/2020 12:14 PM
Naphthalene	ND		5.1	µg/Kg-dry	1	2/20/2020 12:14 PM
Phenanthrene	**31**		**5.1**	**µg/Kg-dry**	1	2/20/2020 12:14 PM
Pyrene	**31**		**5.1**	**µg/Kg-dry**	1	2/20/2020 12:14 PM
Surr: 2-Fluorobiphenyl	*88.1*		*20-140*	*%REC*	1	2/20/2020 12:14 PM
Surr: 4-Terphenyl-d14	*83.3*		*22-172*	*%REC*	1	2/20/2020 12:14 PM
Surr: Nitrobenzene-d5	*82.8*		*28-140*	*%REC*	1	2/20/2020 12:14 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 11:29		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
1,1,1-Trichloroethane	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
1,1,2,2-Tetrachloroethane	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
1,1,2-Trichloroethane	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
1,1,2-Trichlorotrifluoroethane	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
1,1-Dichloroethane	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
1,1-Dichloroethene	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
1,2,3-Trichloropropane	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
1,2,4-Trichlorobenzene	ND		160	µg/Kg-dry	1	2/19/2020 10:45 PM
1,2,4-Trimethylbenzene	**56**		**48**	**µg/Kg-dry**	1	2/19/2020 10:45 PM
1,2-Dibromo-3-chloropropane	ND		160	µg/Kg-dry	1	2/19/2020 10:45 PM
1,2-Dibromoethane	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
1,2-Dichlorobenzene	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
1,2-Dichloroethane	ND		160	µg/Kg-dry	1	2/19/2020 10:45 PM
1,2-Dichloropropane	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
1,3,5-Trimethylbenzene	ND		160	µg/Kg-dry	1	2/19/2020 10:45 PM
1,3-Dichlorobenzene	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
1,4-Dichlorobenzene	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
2-Butanone	ND		320	µg/Kg-dry	1	2/19/2020 10:45 PM
2-Hexanone	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
2-Methylnaphthalene	**370**		**160**	**µg/Kg-dry**	1	2/19/2020 10:45 PM
4-Methyl-2-pentanone	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
Acetone	ND		160	µg/Kg-dry	1	2/19/2020 10:45 PM
Acrylonitrile	ND		160	µg/Kg-dry	1	2/19/2020 10:45 PM
Benzene	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
Bromochloromethane	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
Bromodichloromethane	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: A6 **Lab ID:** 20021006-40
Collection Date: 2/13/2020 12:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
Bromomethane	ND		160	µg/Kg-dry	1	2/19/2020 10:45 PM
Carbon disulfide	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
Carbon tetrachloride	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
Chlorobenzene	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
Chloroethane	ND		160	µg/Kg-dry	1	2/19/2020 10:45 PM
Chloroform	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
Chloromethane	ND		160	µg/Kg-dry	1	2/19/2020 10:45 PM
cis-1,2-Dichloroethene	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
cis-1,3-Dichloropropene	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
Dibromochloromethane	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
Dibromomethane	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
Dichlorodifluoromethane	ND		160	µg/Kg-dry	1	2/19/2020 10:45 PM
Diethyl ether	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
Ethylbenzene	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
Hexachloroethane	ND		160	µg/Kg-dry	1	2/19/2020 10:45 PM
Isopropylbenzene	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
m,p-Xylene	ND		95	µg/Kg-dry	1	2/19/2020 10:45 PM
Methyl iodide	ND		790	µg/Kg-dry	1	2/19/2020 10:45 PM
Methyl tert-butyl ether	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
Methylene chloride	ND		400	µg/Kg-dry	1	2/19/2020 10:45 PM
Naphthalene	**340**		**160**	**µg/Kg-dry**	1	2/19/2020 10:45 PM
n-Propylbenzene	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
o-Xylene	**52**		**48**	**µg/Kg-dry**	1	2/19/2020 10:45 PM
Styrene	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
Tetrachloroethene	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
Toluene	**110**		**48**	**µg/Kg-dry**	1	2/19/2020 10:45 PM
trans-1,2-Dichloroethene	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
trans-1,3-Dichloropropene	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
trans-1,4-Dichloro-2-butene	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
Trichloroethene	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
Trichlorofluoromethane	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
Vinyl acetate	ND		400	µg/Kg-dry	1	2/19/2020 10:45 PM
Vinyl chloride	ND		48	µg/Kg-dry	1	2/19/2020 10:45 PM
Xylenes, Total	ND		140	µg/Kg-dry	1	2/19/2020 10:45 PM
Surr: 1,2-Dichloroethane-d4	*113*		*70-130*	*%REC*	1	2/19/2020 10:45 PM
Surr: 4-Bromofluorobenzene	*95.6*		*70-130*	*%REC*	1	2/19/2020 10:45 PM
Surr: Dibromofluoromethane	*96.6*		*70-130*	*%REC*	1	2/19/2020 10:45 PM
Surr: Toluene-d8	*100*		*70-130*	*%REC*	1	2/19/2020 10:45 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 13:44 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: A6
Lab ID: 20021006-40
Collection Date: 2/13/2020 12:00 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**230**		**26**	**mg/Kg-dry**	1	2/20/2020 09:26 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**22**		**0.10**	**% of sample**	1	2/17/2020 02:45 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**	Prep: E365.1 R2.0 2/18/20 14:05		Analyst: **JZB**
Phosphorus, Total	**330**		**130**	**mg/Kg-dry**	4	2/19/2020 10:24 AM
PH			**SW9045D**	Prep: EXTRACT 2/17/20 11:25		Analyst: **DNW**
pH	**9.12**		**0.100**	**s.u.**	1	2/18/2020 08:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: A7
Lab ID: 20021006-41
Collection Date: 2/13/2020 12:00 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/17/20 15:44		Analyst: **RM**
Aroclor 1016	ND		89	µg/Kg-dry	1	2/18/2020 12:35 AM
Aroclor 1221	ND		89	µg/Kg-dry	1	2/18/2020 12:35 AM
Aroclor 1232	ND		89	µg/Kg-dry	1	2/18/2020 12:35 AM
Aroclor 1242	ND		89	µg/Kg-dry	1	2/18/2020 12:35 AM
Aroclor 1248	ND		89	µg/Kg-dry	1	2/18/2020 12:35 AM
Aroclor 1254	ND		89	µg/Kg-dry	1	2/18/2020 12:35 AM
Aroclor 1260	ND		89	µg/Kg-dry	1	2/18/2020 12:35 AM
Aroclor 1262	ND		89	µg/Kg-dry	1	2/18/2020 12:35 AM
Aroclor 1268	ND		89	µg/Kg-dry	1	2/18/2020 12:35 AM
Surr: Decachlorobiphenyl	*63.9*		*40-140*	*%REC*	1	2/18/2020 12:35 AM
Surr: Tetrachloro-m-xylene	*71.4*		*45-124*	*%REC*	1	2/18/2020 12:35 AM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/19/20 14:43		Analyst: **RSH**
Mercury	**0.047**		**0.022**	**mg/Kg-dry**	1	2/19/2020 05:57 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:31		Analyst: **DSC**
Arsenic	**4.5**		**0.49**	**mg/Kg-dry**	1	2/18/2020 09:02 PM
Barium	**110**		**0.49**	**mg/Kg-dry**	1	2/18/2020 09:02 PM
Cadmium	ND		0.20	mg/Kg-dry	1	2/18/2020 09:02 PM
Chromium	**18**		**0.49**	**mg/Kg-dry**	1	2/18/2020 09:02 PM
Copper	**17**		**0.49**	**mg/Kg-dry**	1	2/18/2020 09:02 PM
Lead	**11**		**0.49**	**mg/Kg-dry**	1	2/18/2020 09:02 PM
Nickel	**23**		**0.49**	**mg/Kg-dry**	1	2/18/2020 09:02 PM
Selenium	ND		0.49	mg/Kg-dry	1	2/18/2020 09:02 PM
Silver	ND		0.49	mg/Kg-dry	1	2/18/2020 09:02 PM
Thorium	**5.0**		**0.49**	**mg/Kg-dry**	1	2/18/2020 09:02 PM
Uranium	**1.3**		**0.49**	**mg/Kg-dry**	1	2/18/2020 09:02 PM
Zinc	**86**		**9.8**	**mg/Kg-dry**	10	2/19/2020 04:39 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:10		Analyst: **EEW**
1-Methylnaphthalene	**7.9**		**5.6**	**µg/Kg-dry**	1	2/20/2020 03:46 PM
2-Chloronaphthalene	ND		5.6	µg/Kg-dry	1	2/20/2020 03:46 PM
2-Methylnaphthalene	ND		5.6	µg/Kg-dry	1	2/20/2020 03:46 PM
Acenaphthene	**10**		**5.6**	**µg/Kg-dry**	1	2/20/2020 03:46 PM
Acenaphthylene	ND		5.6	µg/Kg-dry	1	2/20/2020 03:46 PM
Anthracene	**9.6**		**5.6**	**µg/Kg-dry**	1	2/20/2020 03:46 PM
Benzo(a)anthracene	**7.1**		**5.6**	**µg/Kg-dry**	1	2/20/2020 03:46 PM
Benzo(a)pyrene	ND		5.6	µg/Kg-dry	1	2/20/2020 03:46 PM
Benzo(b)fluoranthene	ND		5.6	µg/Kg-dry	1	2/20/2020 03:46 PM
Benzo(g,h,i)perylene	ND		5.6	µg/Kg-dry	1	2/20/2020 03:46 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: A7 **Lab ID:** 20021006-41
Collection Date: 2/13/2020 12:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.6	µg/Kg-dry	1	2/20/2020 03:46 PM
Chrysene	ND		5.6	µg/Kg-dry	1	2/20/2020 03:46 PM
Dibenzo(a,h)anthracene	ND		5.6	µg/Kg-dry	1	2/20/2020 03:46 PM
Fluoranthene	**11**		**5.6**	**µg/Kg-dry**	1	2/20/2020 03:46 PM
Fluorene	**8.0**		**5.6**	**µg/Kg-dry**	1	2/20/2020 03:46 PM
Indeno(1,2,3-cd)pyrene	ND		5.6	µg/Kg-dry	1	2/20/2020 03:46 PM
Naphthalene	ND		5.6	µg/Kg-dry	1	2/20/2020 03:46 PM
Phenanthrene	**40**		**5.6**	**µg/Kg-dry**	1	2/20/2020 03:46 PM
Pyrene	**13**		**5.6**	**µg/Kg-dry**	1	2/20/2020 03:46 PM
Surr: 2-Fluorobiphenyl	*88.3*		*20-140*	*%REC*	1	2/20/2020 03:46 PM
Surr: 4-Terphenyl-d14	*102*		*22-172*	*%REC*	1	2/20/2020 03:46 PM
Surr: Nitrobenzene-d5	*104*		*28-140*	*%REC*	1	2/20/2020 03:46 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 11:29		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
1,1,1-Trichloroethane	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
1,1,2,2-Tetrachloroethane	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
1,1,2-Trichloroethane	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
1,1,2-Trichlorotrifluoroethane	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
1,1-Dichloroethane	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
1,1-Dichloroethene	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
1,2,3-Trichloropropane	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
1,2,4-Trichlorobenzene	ND		180	µg/Kg-dry	1	2/19/2020 11:02 PM
1,2,4-Trimethylbenzene	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
1,2-Dibromo-3-chloropropane	ND		180	µg/Kg-dry	1	2/19/2020 11:02 PM
1,2-Dibromoethane	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
1,2-Dichlorobenzene	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
1,2-Dichloroethane	ND		180	µg/Kg-dry	1	2/19/2020 11:02 PM
1,2-Dichloropropane	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
1,3,5-Trimethylbenzene	ND		180	µg/Kg-dry	1	2/19/2020 11:02 PM
1,3-Dichlorobenzene	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
1,4-Dichlorobenzene	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
2-Butanone	ND		350	µg/Kg-dry	1	2/19/2020 11:02 PM
2-Hexanone	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
2-Methylnaphthalene	ND		180	µg/Kg-dry	1	2/19/2020 11:02 PM
4-Methyl-2-pentanone	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
Acetone	ND		180	µg/Kg-dry	1	2/19/2020 11:02 PM
Acrylonitrile	ND		180	µg/Kg-dry	1	2/19/2020 11:02 PM
Benzene	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
Bromochloromethane	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
Bromodichloromethane	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: A7 **Lab ID:** 20021006-41
Collection Date: 2/13/2020 12:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
Bromomethane	ND		180	µg/Kg-dry	1	2/19/2020 11:02 PM
Carbon disulfide	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
Carbon tetrachloride	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
Chlorobenzene	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
Chloroethane	ND		180	µg/Kg-dry	1	2/19/2020 11:02 PM
Chloroform	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
Chloromethane	ND		180	µg/Kg-dry	1	2/19/2020 11:02 PM
cis-1,2-Dichloroethene	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
cis-1,3-Dichloropropene	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
Dibromochloromethane	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
Dibromomethane	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
Dichlorodifluoromethane	ND		180	µg/Kg-dry	1	2/19/2020 11:02 PM
Diethyl ether	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
Ethylbenzene	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
Hexachloroethane	ND		180	µg/Kg-dry	1	2/19/2020 11:02 PM
Isopropylbenzene	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
m,p-Xylene	ND		110	µg/Kg-dry	1	2/19/2020 11:02 PM
Methyl iodide	ND		880	µg/Kg-dry	1	2/19/2020 11:02 PM
Methyl tert-butyl ether	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
Methylene chloride	ND		440	µg/Kg-dry	1	2/19/2020 11:02 PM
Naphthalene	ND		180	µg/Kg-dry	1	2/19/2020 11:02 PM
n-Propylbenzene	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
o-Xylene	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
Styrene	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
Tetrachloroethene	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
Toluene	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
trans-1,2-Dichloroethene	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
trans-1,3-Dichloropropene	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
trans-1,4-Dichloro-2-butene	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
Trichloroethene	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
Trichlorofluoromethane	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
Vinyl acetate	ND		440	µg/Kg-dry	1	2/19/2020 11:02 PM
Vinyl chloride	ND		53	µg/Kg-dry	1	2/19/2020 11:02 PM
Xylenes, Total	ND		160	µg/Kg-dry	1	2/19/2020 11:02 PM
Surr: 1,2-Dichloroethane-d4	*110*		*70-130*	*%REC*	1	2/19/2020 11:02 PM
Surr: 4-Bromofluorobenzene	*103*		*70-130*	*%REC*	1	2/19/2020 11:02 PM
Surr: Dibromofluoromethane	*97.2*		*70-130*	*%REC*	1	2/19/2020 11:02 PM
Surr: Toluene-d8	*98.8*		*70-130*	*%REC*	1	2/19/2020 11:02 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 13:44 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: A7
Lab ID: 20021006-41
Collection Date: 2/13/2020 12:00 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**48**		**27**	**mg/Kg-dry**	1	2/20/2020 09:26 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**26**		**0.10**	**% of sample**	1	2/17/2020 02:45 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/18/20 14:05	Analyst: **JZB**
Phosphorus, Total	**480**		**140**	**mg/Kg-dry**	4	2/19/2020 10:25 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 11:25	Analyst: **DNW**
pH	**8.31**		**0.100**	**s.u.**	1	2/18/2020 08:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-7 2-3'
Collection Date: 2/13/2020 10:45 AM

Work Order: 20021006
Lab ID: 20021006-42
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/17/20 15:44		Analyst: **RM**
Aroclor 1016	ND		80	µg/Kg-dry	1	2/18/2020 12:50 AM
Aroclor 1221	ND		80	µg/Kg-dry	1	2/18/2020 12:50 AM
Aroclor 1232	ND		80	µg/Kg-dry	1	2/18/2020 12:50 AM
Aroclor 1242	ND		80	µg/Kg-dry	1	2/18/2020 12:50 AM
Aroclor 1248	ND		80	µg/Kg-dry	1	2/18/2020 12:50 AM
Aroclor 1254	ND		80	µg/Kg-dry	1	2/18/2020 12:50 AM
Aroclor 1260	ND		80	µg/Kg-dry	1	2/18/2020 12:50 AM
Aroclor 1262	ND		80	µg/Kg-dry	1	2/18/2020 12:50 AM
Aroclor 1268	ND		80	µg/Kg-dry	1	2/18/2020 12:50 AM
Surr: Decachlorobiphenyl	*51.7*		*40-140*	*%REC*	1	2/18/2020 12:50 AM
Surr: Tetrachloro-m-xylene	*67.9*		*45-124*	*%REC*	1	2/18/2020 12:50 AM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/19/20 14:43		Analyst: **RSH**
Mercury	**0.049**		**0.021**	**mg/Kg-dry**	1	2/19/2020 05:59 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:31		Analyst: **DSC**
Arsenic	**8.3**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:07 PM
Barium	**59**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:07 PM
Cadmium	**0.66**		**0.17**	**mg/Kg-dry**	1	2/18/2020 09:07 PM
Chromium	**320**		**41**	**mg/Kg-dry**	100	2/19/2020 04:40 PM
Copper	**330**		**41**	**mg/Kg-dry**	100	2/19/2020 04:40 PM
Lead	**75**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:07 PM
Nickel	**23**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:07 PM
Selenium	**0.47**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:07 PM
Silver	ND		0.41	mg/Kg-dry	1	2/18/2020 09:07 PM
Thorium	**4.1**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:07 PM
Uranium	**1.0**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:07 PM
Zinc	**370**		**83**	**mg/Kg-dry**	100	2/19/2020 04:40 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:10		Analyst: **EEW**
1-Methylnaphthalene	ND		5.1	µg/Kg-dry	1	2/20/2020 04:01 PM
2-Chloronaphthalene	ND		5.1	µg/Kg-dry	1	2/20/2020 04:01 PM
2-Methylnaphthalene	ND		5.1	µg/Kg-dry	1	2/20/2020 04:01 PM
Acenaphthene	**170**		**5.1**	**µg/Kg-dry**	1	2/20/2020 04:01 PM
Acenaphthylene	**6.0**		**5.1**	**µg/Kg-dry**	1	2/20/2020 04:01 PM
Anthracene	**24**		**5.1**	**µg/Kg-dry**	1	2/20/2020 04:01 PM
Benzo(a)anthracene	**14**		**5.1**	**µg/Kg-dry**	1	2/20/2020 04:01 PM
Benzo(a)pyrene	**6.6**		**5.1**	**µg/Kg-dry**	1	2/20/2020 04:01 PM
Benzo(b)fluoranthene	**6.4**		**5.1**	**µg/Kg-dry**	1	2/20/2020 04:01 PM
Benzo(g,h,i)perylene	ND		5.1	µg/Kg-dry	1	2/20/2020 04:01 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-7 2-3'
Lab ID: 20021006-42
Collection Date: 2/13/2020 10:45 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.1	µg/Kg-dry	1	2/20/2020 04:01 PM
Chrysene	**9.4**		**5.1**	**µg/Kg-dry**	1	2/20/2020 04:01 PM
Dibenzo(a,h)anthracene	ND		5.1	µg/Kg-dry	1	2/20/2020 04:01 PM
Fluoranthene	**40**		**5.1**	**µg/Kg-dry**	1	2/20/2020 04:01 PM
Fluorene	**65**		**5.1**	**µg/Kg-dry**	1	2/20/2020 04:01 PM
Indeno(1,2,3-cd)pyrene	ND		5.1	µg/Kg-dry	1	2/20/2020 04:01 PM
Naphthalene	ND		5.1	µg/Kg-dry	1	2/20/2020 04:01 PM
Phenanthrene	**110**		**5.1**	**µg/Kg-dry**	1	2/20/2020 04:01 PM
Pyrene	**43**		**5.1**	**µg/Kg-dry**	1	2/20/2020 04:01 PM
Surr: 2-Fluorobiphenyl	*84.9*		*20-140*	*%REC*	1	2/20/2020 04:01 PM
Surr: 4-Terphenyl-d14	*97.3*		*22-172*	*%REC*	1	2/20/2020 04:01 PM
Surr: Nitrobenzene-d5	*96.8*		*28-140*	*%REC*	1	2/20/2020 04:01 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 11:29		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
1,1,1-Trichloroethane	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
1,1,2,2-Tetrachloroethane	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
1,1,2-Trichloroethane	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
1,1,2-Trichlorotrifluoroethane	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
1,1-Dichloroethane	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
1,1-Dichloroethene	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
1,2,3-Trichloropropane	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
1,2,4-Trichlorobenzene	ND		160	µg/Kg-dry	1	2/19/2020 11:18 PM
1,2,4-Trimethylbenzene	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
1,2-Dibromo-3-chloropropane	ND		160	µg/Kg-dry	1	2/19/2020 11:18 PM
1,2-Dibromoethane	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
1,2-Dichlorobenzene	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
1,2-Dichloroethane	ND		160	µg/Kg-dry	1	2/19/2020 11:18 PM
1,2-Dichloropropane	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
1,3,5-Trimethylbenzene	ND		160	µg/Kg-dry	1	2/19/2020 11:18 PM
1,3-Dichlorobenzene	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
1,4-Dichlorobenzene	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
2-Butanone	ND		320	µg/Kg-dry	1	2/19/2020 11:18 PM
2-Hexanone	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
2-Methylnaphthalene	ND		160	µg/Kg-dry	1	2/19/2020 11:18 PM
4-Methyl-2-pentanone	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
Acetone	ND		160	µg/Kg-dry	1	2/19/2020 11:18 PM
Acrylonitrile	ND		160	µg/Kg-dry	1	2/19/2020 11:18 PM
Benzene	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
Bromochloromethane	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
Bromodichloromethane	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-7 2-3'
Collection Date: 2/13/2020 10:45 AM

Work Order: 20021006
Lab ID: 20021006-42
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
Bromomethane	ND		160	µg/Kg-dry	1	2/19/2020 11:18 PM
Carbon disulfide	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
Carbon tetrachloride	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
Chlorobenzene	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
Chloroethane	ND		160	µg/Kg-dry	1	2/19/2020 11:18 PM
Chloroform	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
Chloromethane	ND		160	µg/Kg-dry	1	2/19/2020 11:18 PM
cis-1,2-Dichloroethene	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
cis-1,3-Dichloropropene	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
Dibromochloromethane	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
Dibromomethane	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
Dichlorodifluoromethane	ND		160	µg/Kg-dry	1	2/19/2020 11:18 PM
Diethyl ether	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
Ethylbenzene	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
Hexachloroethane	ND		160	µg/Kg-dry	1	2/19/2020 11:18 PM
Isopropylbenzene	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
m,p-Xylene	ND		97	µg/Kg-dry	1	2/19/2020 11:18 PM
Methyl iodide	ND		810	µg/Kg-dry	1	2/19/2020 11:18 PM
Methyl tert-butyl ether	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
Methylene chloride	ND		400	µg/Kg-dry	1	2/19/2020 11:18 PM
Naphthalene	ND		160	µg/Kg-dry	1	2/19/2020 11:18 PM
n-Propylbenzene	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
o-Xylene	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
Styrene	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
Tetrachloroethene	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
Toluene	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
trans-1,2-Dichloroethene	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
trans-1,3-Dichloropropene	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
trans-1,4-Dichloro-2-butene	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
Trichloroethene	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
Trichlorofluoromethane	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
Vinyl acetate	ND		400	µg/Kg-dry	1	2/19/2020 11:18 PM
Vinyl chloride	ND		48	µg/Kg-dry	1	2/19/2020 11:18 PM
Xylenes, Total	ND		150	µg/Kg-dry	1	2/19/2020 11:18 PM
Surr: 1,2-Dichloroethane-d4	*110*		*70-130*	*%REC*	1	2/19/2020 11:18 PM
Surr: 4-Bromofluorobenzene	*98.9*		*70-130*	*%REC*	1	2/19/2020 11:18 PM
Surr: Dibromofluoromethane	*92.9*		*70-130*	*%REC*	1	2/19/2020 11:18 PM
Surr: Toluene-d8	*98.6*		*70-130*	*%REC*	1	2/19/2020 11:18 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 13:44 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-7 2-3'
Lab ID: 20021006-42
Collection Date: 2/13/2020 10:45 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**71**		**25**	**mg/Kg-dry**	1	2/20/2020 09:26 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**21**		**0.10**	**% of sample**	1	2/18/2020 01:03 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/17/20 13:08	Analyst: **JZB**
Phosphorus, Total	**320**		**120**	**mg/Kg-dry**	4	2/18/2020 11:25 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 11:25	Analyst: **DNW**
pH	**8.01**		**0.100**	**s.u.**	1	2/18/2020 08:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-7 8-9'
Collection Date: 2/13/2020 10:50 AM

Work Order: 20021006
Lab ID: 20021006-43
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/17/20 15:44		Analyst: **RM**
Aroclor 1016	ND		350	µg/Kg-dry	1	2/18/2020 01:05 AM
Aroclor 1221	ND		350	µg/Kg-dry	1	2/18/2020 01:05 AM
Aroclor 1232	ND		350	µg/Kg-dry	1	2/18/2020 01:05 AM
Aroclor 1242	ND		350	µg/Kg-dry	1	2/18/2020 01:05 AM
Aroclor 1248	ND		350	µg/Kg-dry	1	2/18/2020 01:05 AM
Aroclor 1254	ND		350	µg/Kg-dry	1	2/18/2020 01:05 AM
Aroclor 1260	ND		350	µg/Kg-dry	1	2/18/2020 01:05 AM
Aroclor 1262	ND		350	µg/Kg-dry	1	2/18/2020 01:05 AM
Aroclor 1268	ND		350	µg/Kg-dry	1	2/18/2020 01:05 AM
Surr: Decachlorobiphenyl	*71.2*		*40-140*	*%REC*	1	2/18/2020 01:05 AM
Surr: Tetrachloro-m-xylene	*75.5*		*45-124*	*%REC*	1	2/18/2020 01:05 AM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/19/20 14:43		Analyst: **RSH**
Mercury	**1.6**		**0.21**	**mg/Kg-dry**	10	2/20/2020 04:35 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:31		Analyst: **DSC**
Arsenic	**8.9**		**0.54**	**mg/Kg-dry**	1	2/18/2020 09:09 PM
Barium	**73**		**0.54**	**mg/Kg-dry**	1	2/18/2020 09:09 PM
Cadmium	**1.5**		**0.21**	**mg/Kg-dry**	1	2/18/2020 09:09 PM
Chromium	**17**		**0.54**	**mg/Kg-dry**	1	2/18/2020 09:09 PM
Copper	**310**		**54**	**mg/Kg-dry**	100	2/19/2020 04:45 PM
Lead	**200**		**54**	**mg/Kg-dry**	100	2/19/2020 04:45 PM
Nickel	**22**		**0.54**	**mg/Kg-dry**	1	2/18/2020 09:09 PM
Selenium	ND		0.54	mg/Kg-dry	1	2/18/2020 09:09 PM
Silver	ND		0.54	mg/Kg-dry	1	2/18/2020 09:09 PM
Thorium	**4.5**		**0.54**	**mg/Kg-dry**	1	2/18/2020 09:09 PM
Uranium	**1.0**		**0.54**	**mg/Kg-dry**	1	2/18/2020 09:09 PM
Zinc	**450**		**110**	**mg/Kg-dry**	100	2/19/2020 04:45 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:10		Analyst: **EEW**
1-Methylnaphthalene	**320**		**5.6**	**µg/Kg-dry**	1	2/20/2020 04:17 PM
2-Chloronaphthalene	ND		5.6	µg/Kg-dry	1	2/20/2020 04:17 PM
2-Methylnaphthalene	**200**		**5.6**	**µg/Kg-dry**	1	2/20/2020 04:17 PM
Acenaphthene	**600**		**5.6**	**µg/Kg-dry**	1	2/20/2020 04:17 PM
Acenaphthylene	**24**		**5.6**	**µg/Kg-dry**	1	2/20/2020 04:17 PM
Anthracene	**580**		**5.6**	**µg/Kg-dry**	1	2/20/2020 04:17 PM
Benzo(a)anthracene	**260**		**5.6**	**µg/Kg-dry**	1	2/20/2020 04:17 PM
Benzo(a)pyrene	**140**		**5.6**	**µg/Kg-dry**	1	2/20/2020 04:17 PM
Benzo(b)fluoranthene	**170**		**5.6**	**µg/Kg-dry**	1	2/20/2020 04:17 PM
Benzo(g,h,i)perylene	**58**		**5.6**	**µg/Kg-dry**	1	2/20/2020 04:17 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-7 8-9' **Lab ID:** 20021006-43
Collection Date: 2/13/2020 10:50 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**59**		**5.6**	**µg/Kg-dry**	1	2/20/2020 04:17 PM
Chrysene	**230**		**5.6**	**µg/Kg-dry**	1	2/20/2020 04:17 PM
Dibenzo(a,h)anthracene	**13**		**5.6**	**µg/Kg-dry**	1	2/20/2020 04:17 PM
Fluoranthene	**850**		**5.6**	**µg/Kg-dry**	1	2/20/2020 04:17 PM
Fluorene	**530**		**5.6**	**µg/Kg-dry**	1	2/20/2020 04:17 PM
Indeno(1,2,3-cd)pyrene	**82**		**5.6**	**µg/Kg-dry**	1	2/20/2020 04:17 PM
Naphthalene	**230**		**5.6**	**µg/Kg-dry**	1	2/20/2020 04:17 PM
Phenanthrene	**2,100**		**5.6**	**µg/Kg-dry**	1	2/20/2020 04:17 PM
Pyrene	**770**		**5.6**	**µg/Kg-dry**	1	2/20/2020 04:17 PM
Surr: 2-Fluorobiphenyl	*93.7*		*20-140*	*%REC*	1	2/20/2020 04:17 PM
Surr: 4-Terphenyl-d14	*98.8*		*22-172*	*%REC*	1	2/20/2020 04:17 PM
Surr: Nitrobenzene-d5	*108*		*28-140*	*%REC*	1	2/20/2020 04:17 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 11:29		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
1,1,1-Trichloroethane	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
1,1,2,2-Tetrachloroethane	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
1,1,2-Trichloroethane	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
1,1,2-Trichlorotrifluoroethane	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
1,1-Dichloroethane	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
1,1-Dichloroethene	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
1,2,3-Trichloropropane	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
1,2,4-Trichlorobenzene	ND		160	µg/Kg-dry	1	2/19/2020 11:35 PM
1,2,4-Trimethylbenzene	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
1,2-Dibromo-3-chloropropane	ND		160	µg/Kg-dry	1	2/19/2020 11:35 PM
1,2-Dibromoethane	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
1,2-Dichlorobenzene	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
1,2-Dichloroethane	ND		160	µg/Kg-dry	1	2/19/2020 11:35 PM
1,2-Dichloropropane	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
1,3,5-Trimethylbenzene	ND		160	µg/Kg-dry	1	2/19/2020 11:35 PM
1,3-Dichlorobenzene	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
1,4-Dichlorobenzene	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
2-Butanone	ND		320	µg/Kg-dry	1	2/19/2020 11:35 PM
2-Hexanone	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
2-Methylnaphthalene	ND		160	µg/Kg-dry	1	2/19/2020 11:35 PM
4-Methyl-2-pentanone	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
Acetone	ND		160	µg/Kg-dry	1	2/19/2020 11:35 PM
Acrylonitrile	ND		160	µg/Kg-dry	1	2/19/2020 11:35 PM
Benzene	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
Bromochloromethane	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
Bromodichloromethane	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-7 8-9'
Lab ID: 20021006-43
Collection Date: 2/13/2020 10:50 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
Bromomethane	ND		160	µg/Kg-dry	1	2/19/2020 11:35 PM
Carbon disulfide	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
Carbon tetrachloride	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
Chlorobenzene	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
Chloroethane	ND		160	µg/Kg-dry	1	2/19/2020 11:35 PM
Chloroform	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
Chloromethane	ND		160	µg/Kg-dry	1	2/19/2020 11:35 PM
cis-1,2-Dichloroethene	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
cis-1,3-Dichloropropene	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
Dibromochloromethane	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
Dibromomethane	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
Dichlorodifluoromethane	ND		160	µg/Kg-dry	1	2/19/2020 11:35 PM
Diethyl ether	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
Ethylbenzene	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
Hexachloroethane	ND		160	µg/Kg-dry	1	2/19/2020 11:35 PM
Isopropylbenzene	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
m,p-Xylene	ND		97	µg/Kg-dry	1	2/19/2020 11:35 PM
Methyl iodide	ND		810	µg/Kg-dry	1	2/19/2020 11:35 PM
Methyl tert-butyl ether	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
Methylene chloride	ND		400	µg/Kg-dry	1	2/19/2020 11:35 PM
Naphthalene	ND		160	µg/Kg-dry	1	2/19/2020 11:35 PM
n-Propylbenzene	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
o-Xylene	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
Styrene	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
Tetrachloroethene	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
Toluene	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
trans-1,2-Dichloroethene	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
trans-1,3-Dichloropropene	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
trans-1,4-Dichloro-2-butene	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
Trichloroethene	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
Trichlorofluoromethane	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
Vinyl acetate	ND		400	µg/Kg-dry	1	2/19/2020 11:35 PM
Vinyl chloride	ND		48	µg/Kg-dry	1	2/19/2020 11:35 PM
Xylenes, Total	ND		150	µg/Kg-dry	1	2/19/2020 11:35 PM
Surr: 1,2-Dichloroethane-d4	*110*		*70-130*	*%REC*	1	2/19/2020 11:35 PM
Surr: 4-Bromofluorobenzene	*101*		*70-130*	*%REC*	1	2/19/2020 11:35 PM
Surr: Dibromofluoromethane	*97.0*		*70-130*	*%REC*	1	2/19/2020 11:35 PM
Surr: Toluene-d8	*99.4*		*70-130*	*%REC*	1	2/19/2020 11:35 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 13:44 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-7 8-9'
Collection Date: 2/13/2020 10:50 AM

Work Order: 20021006
Lab ID: 20021006-43
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	ND		27	mg/Kg-dry	1	2/20/2020 09:26 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**27**		**0.10**	**% of sample**	1	2/18/2020 01:03 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/17/20 13:08	Analyst: **JZB**
Phosphorus, Total	**270**		**140**	**mg/Kg-dry**	4	2/18/2020 11:27 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 11:25	Analyst: **DNW**
pH	**7.48**		**0.100**	**s.u.**	1	2/18/2020 08:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-7 10-11'
Lab ID: 20021006-44
Collection Date: 2/13/2020 11:15 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/17/20 15:44		Analyst: **RM**
Aroclor 1016	ND		80	µg/Kg-dry	1	2/18/2020 01:21 AM
Aroclor 1221	ND		80	µg/Kg-dry	1	2/18/2020 01:21 AM
Aroclor 1232	ND		80	µg/Kg-dry	1	2/18/2020 01:21 AM
Aroclor 1242	ND		80	µg/Kg-dry	1	2/18/2020 01:21 AM
Aroclor 1248	ND		80	µg/Kg-dry	1	2/18/2020 01:21 AM
Aroclor 1254	ND		80	µg/Kg-dry	1	2/18/2020 01:21 AM
Aroclor 1260	ND		80	µg/Kg-dry	1	2/18/2020 01:21 AM
Aroclor 1262	ND		80	µg/Kg-dry	1	2/18/2020 01:21 AM
Aroclor 1268	ND		80	µg/Kg-dry	1	2/18/2020 01:21 AM
Surr: Decachlorobiphenyl	*65.4*		*40-140*	*%REC*	1	2/18/2020 01:21 AM
Surr: Tetrachloro-m-xylene	*70.0*		*45-124*	*%REC*	1	2/18/2020 01:21 AM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/19/20 14:43		Analyst: **RSH**
Mercury	**0.043**		**0.022**	**mg/Kg-dry**	1	2/19/2020 06:05 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:31		Analyst: **DSC**
Arsenic	**6.7**		**0.50**	**mg/Kg-dry**	1	2/18/2020 09:11 PM
Barium	**72**		**0.50**	**mg/Kg-dry**	1	2/18/2020 09:11 PM
Cadmium	**0.26**		**0.20**	**mg/Kg-dry**	1	2/18/2020 09:11 PM
Chromium	**14**		**0.50**	**mg/Kg-dry**	1	2/18/2020 09:11 PM
Copper	**47**		**5.0**	**mg/Kg-dry**	10	2/19/2020 04:46 PM
Lead	**22**		**0.50**	**mg/Kg-dry**	1	2/18/2020 09:11 PM
Nickel	**21**		**0.50**	**mg/Kg-dry**	1	2/18/2020 09:11 PM
Selenium	ND		0.50	mg/Kg-dry	1	2/18/2020 09:11 PM
Silver	ND		0.50	mg/Kg-dry	1	2/18/2020 09:11 PM
Thorium	**4.0**		**0.50**	**mg/Kg-dry**	1	2/18/2020 09:11 PM
Uranium	**1.6**		**0.50**	**mg/Kg-dry**	1	2/18/2020 09:11 PM
Zinc	**140**		**10**	**mg/Kg-dry**	10	2/19/2020 04:46 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:10		Analyst: **EEW**
1-Methylnaphthalene	**78**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:46 PM
2-Chloronaphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 04:46 PM
2-Methylnaphthalene	**15**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:46 PM
Acenaphthene	**120**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:46 PM
Acenaphthylene	**7.1**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:46 PM
Anthracene	**150**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:46 PM
Benzo(a)anthracene	**90**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:46 PM
Benzo(a)pyrene	**52**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:46 PM
Benzo(b)fluoranthene	**57**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:46 PM
Benzo(g,h,i)perylene	**22**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:46 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-7 10-11' **Lab ID:** 20021006-44
Collection Date: 2/13/2020 11:15 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**21**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:46 PM
Chrysene	**87**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:46 PM
Dibenzo(a,h)anthracene	ND		5.0	µg/Kg-dry	1	2/20/2020 04:46 PM
Fluoranthene	**240**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:46 PM
Fluorene	**93**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:46 PM
Indeno(1,2,3-cd)pyrene	**25**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:46 PM
Naphthalene	**7.1**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:46 PM
Phenanthrene	**480**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:46 PM
Pyrene	**250**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:46 PM
Surr: 2-Fluorobiphenyl	*92.3*		*20-140*	*%REC*	1	2/20/2020 04:46 PM
Surr: 4-Terphenyl-d14	*97.5*		*22-172*	*%REC*	1	2/20/2020 04:46 PM
Surr: Nitrobenzene-d5	*102*		*28-140*	*%REC*	1	2/20/2020 04:46 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 11:29		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
1,1,1-Trichloroethane	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
1,1,2,2-Tetrachloroethane	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
1,1,2-Trichloroethane	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
1,1,2-Trichlorotrifluoroethane	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
1,1-Dichloroethane	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
1,1-Dichloroethene	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
1,2,3-Trichloropropane	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
1,2,4-Trichlorobenzene	ND		140	µg/Kg-dry	1	2/19/2020 11:51 PM
1,2,4-Trimethylbenzene	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
1,2-Dibromo-3-chloropropane	ND		140	µg/Kg-dry	1	2/19/2020 11:51 PM
1,2-Dibromoethane	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
1,2-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
1,2-Dichloroethane	ND		140	µg/Kg-dry	1	2/19/2020 11:51 PM
1,2-Dichloropropane	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
1,3,5-Trimethylbenzene	ND		140	µg/Kg-dry	1	2/19/2020 11:51 PM
1,3-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
1,4-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
2-Butanone	ND		280	µg/Kg-dry	1	2/19/2020 11:51 PM
2-Hexanone	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
2-Methylnaphthalene	ND		140	µg/Kg-dry	1	2/19/2020 11:51 PM
4-Methyl-2-pentanone	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
Acetone	ND		140	µg/Kg-dry	1	2/19/2020 11:51 PM
Acrylonitrile	ND		140	µg/Kg-dry	1	2/19/2020 11:51 PM
Benzene	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
Bromochloromethane	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
Bromodichloromethane	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-7 10-11'
Collection Date: 2/13/2020 11:15 AM

Work Order: 20021006
Lab ID: 20021006-44
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
Bromomethane	ND		140	µg/Kg-dry	1	2/19/2020 11:51 PM
Carbon disulfide	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
Carbon tetrachloride	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
Chlorobenzene	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
Chloroethane	ND		140	µg/Kg-dry	1	2/19/2020 11:51 PM
Chloroform	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
Chloromethane	ND		140	µg/Kg-dry	1	2/19/2020 11:51 PM
cis-1,2-Dichloroethene	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
cis-1,3-Dichloropropene	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
Dibromochloromethane	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
Dibromomethane	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
Dichlorodifluoromethane	ND		140	µg/Kg-dry	1	2/19/2020 11:51 PM
Diethyl ether	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
Ethylbenzene	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
Hexachloroethane	ND		140	µg/Kg-dry	1	2/19/2020 11:51 PM
Isopropylbenzene	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
m,p-Xylene	ND		85	µg/Kg-dry	1	2/19/2020 11:51 PM
Methyl iodide	ND		710	µg/Kg-dry	1	2/19/2020 11:51 PM
Methyl tert-butyl ether	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
Methylene chloride	ND		350	µg/Kg-dry	1	2/19/2020 11:51 PM
Naphthalene	ND		140	µg/Kg-dry	1	2/19/2020 11:51 PM
n-Propylbenzene	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
o-Xylene	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
Styrene	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
Tetrachloroethene	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
Toluene	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
trans-1,2-Dichloroethene	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
trans-1,3-Dichloropropene	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
trans-1,4-Dichloro-2-butene	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
Trichloroethene	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
Trichlorofluoromethane	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
Vinyl acetate	ND		350	µg/Kg-dry	1	2/19/2020 11:51 PM
Vinyl chloride	ND		43	µg/Kg-dry	1	2/19/2020 11:51 PM
Xylenes, Total	ND		130	µg/Kg-dry	1	2/19/2020 11:51 PM
Surr: 1,2-Dichloroethane-d4	*116*		*70-130*	*%REC*	1	2/19/2020 11:51 PM
Surr: 4-Bromofluorobenzene	*102*		*70-130*	*%REC*	1	2/19/2020 11:51 PM
Surr: Dibromofluoromethane	*98.4*		*70-130*	*%REC*	1	2/19/2020 11:51 PM
Surr: Toluene-d8	*97.9*		*70-130*	*%REC*	1	2/19/2020 11:51 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 13:44 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-7 10-11'
Lab ID: 20021006-44
Collection Date: 2/13/2020 11:15 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor		Date Analyzed
Biochemical Oxygen Demand	ND		24	mg/Kg-dry	1		2/20/2020 09:26 AM
MOISTURE			**SW3550C**				Analyst: **KTP**
Moisture	**18**		**0.10**	**% of sample**	1		2/18/2020 01:03 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**			Prep: E365.1 R2.0 2/17/20 13:08	Analyst: **JZB**
Phosphorus, Total	**350**		**110**	**mg/Kg-dry**	4		2/18/2020 11:28 AM
PH			**SW9045D**			Prep: EXTRACT 2/17/20 11:25	Analyst: **DNW**
pH	**8.12**		**0.100**	**s.u.**	1		2/18/2020 08:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-7 11-12'
Collection Date: 2/13/2020 11:20 AM

Work Order: 20021006
Lab ID: 20021006-45
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/18/20 10:48		Analyst: **RM**
Aroclor 1016	ND		80	µg/Kg-dry	1	2/18/2020 05:12 PM
Aroclor 1221	ND		80	µg/Kg-dry	1	2/18/2020 05:12 PM
Aroclor 1232	ND		80	µg/Kg-dry	1	2/18/2020 05:12 PM
Aroclor 1242	ND		80	µg/Kg-dry	1	2/18/2020 05:12 PM
Aroclor 1248	ND		80	µg/Kg-dry	1	2/18/2020 05:12 PM
Aroclor 1254	ND		80	µg/Kg-dry	1	2/18/2020 05:12 PM
Aroclor 1260	ND		80	µg/Kg-dry	1	2/18/2020 05:12 PM
Aroclor 1262	ND		80	µg/Kg-dry	1	2/18/2020 05:12 PM
Aroclor 1268	ND		80	µg/Kg-dry	1	2/18/2020 05:12 PM
Surr: Decachlorobiphenyl	*52.3*		*40-140*	*%REC*	1	2/18/2020 05:12 PM
Surr: Tetrachloro-m-xylene	*56.2*		*45-124*	*%REC*	1	2/18/2020 05:12 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/19/20 14:43		Analyst: **RSH**
Mercury	**0.068**		**0.022**	**mg/Kg-dry**	1	2/19/2020 06:07 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:31		Analyst: **DSC**
Arsenic	**6.2**		**0.39**	**mg/Kg-dry**	1	2/18/2020 09:13 PM
Barium	**72**		**0.39**	**mg/Kg-dry**	1	2/18/2020 09:13 PM
Cadmium	ND		0.16	mg/Kg-dry	1	2/18/2020 09:13 PM
Chromium	**13**		**0.39**	**mg/Kg-dry**	1	2/18/2020 09:13 PM
Copper	**26**		**3.9**	**mg/Kg-dry**	10	2/19/2020 04:48 PM
Lead	**14**		**0.39**	**mg/Kg-dry**	1	2/18/2020 09:13 PM
Nickel	**20**		**0.39**	**mg/Kg-dry**	1	2/18/2020 09:13 PM
Selenium	ND		0.39	mg/Kg-dry	1	2/18/2020 09:13 PM
Silver	ND		0.39	mg/Kg-dry	1	2/18/2020 09:13 PM
Thorium	**4.0**		**0.39**	**mg/Kg-dry**	1	2/18/2020 09:13 PM
Uranium	**1.7**		**0.39**	**mg/Kg-dry**	1	2/18/2020 09:13 PM
Zinc	**66**		**7.8**	**mg/Kg-dry**	10	2/19/2020 04:48 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:10		Analyst: **EEW**
1-Methylnaphthalene	**73**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:01 PM
2-Chloronaphthalene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:01 PM
2-Methylnaphthalene	**11**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:01 PM
Acenaphthene	**120**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:01 PM
Acenaphthylene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:01 PM
Anthracene	**130**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:01 PM
Benzo(a)anthracene	**55**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:01 PM
Benzo(a)pyrene	**34**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:01 PM
Benzo(b)fluoranthene	**34**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:01 PM
Benzo(g,h,i)perylene	**19**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:01 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-7 11-12'
Lab ID: 20021006-45
Collection Date: 2/13/2020 11:20 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**12**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:01 PM
Chrysene	**56**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:01 PM
Dibenzo(a,h)anthracene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:01 PM
Fluoranthene	**180**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:01 PM
Fluorene	**98**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:01 PM
Indeno(1,2,3-cd)pyrene	**16**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:01 PM
Naphthalene	**5.4**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:01 PM
Phenanthrene	**430**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:01 PM
Pyrene	**170**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:01 PM
Surr: 2-Fluorobiphenyl	*90.8*		*20-140*	*%REC*	1	2/20/2020 05:01 PM
Surr: 4-Terphenyl-d14	*94.0*		*22-172*	*%REC*	1	2/20/2020 05:01 PM
Surr: Nitrobenzene-d5	*105*		*28-140*	*%REC*	1	2/20/2020 05:01 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 11:29		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
1,1,1-Trichloroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
1,1,2,2-Tetrachloroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
1,1,2-Trichloroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
1,1,2-Trichlorotrifluoroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
1,1-Dichloroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
1,1-Dichloroethene	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
1,2,3-Trichloropropane	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
1,2,4-Trichlorobenzene	ND		140	µg/Kg-dry	1	2/20/2020 12:07 PM
1,2,4-Trimethylbenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
1,2-Dibromo-3-chloropropane	ND		140	µg/Kg-dry	1	2/20/2020 12:07 PM
1,2-Dibromoethane	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
1,2-Dichlorobenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
1,2-Dichloroethane	ND		140	µg/Kg-dry	1	2/20/2020 12:07 PM
1,2-Dichloropropane	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
1,3,5-Trimethylbenzene	ND		140	µg/Kg-dry	1	2/20/2020 12:07 PM
1,3-Dichlorobenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
1,4-Dichlorobenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
2-Butanone	ND		270	µg/Kg-dry	1	2/20/2020 12:07 PM
2-Hexanone	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
2-Methylnaphthalene	ND		140	µg/Kg-dry	1	2/20/2020 12:07 PM
4-Methyl-2-pentanone	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
Acetone	ND		140	µg/Kg-dry	1	2/20/2020 12:07 PM
Acrylonitrile	ND		140	µg/Kg-dry	1	2/20/2020 12:07 PM
Benzene	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
Bromochloromethane	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
Bromodichloromethane	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-7 11-12'
Collection Date: 2/13/2020 11:20 AM

Work Order: 20021006
Lab ID: 20021006-45
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
Bromomethane	ND		140	µg/Kg-dry	1	2/20/2020 12:07 PM
Carbon disulfide	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
Carbon tetrachloride	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
Chlorobenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
Chloroethane	ND		140	µg/Kg-dry	1	2/20/2020 12:07 PM
Chloroform	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
Chloromethane	ND		140	µg/Kg-dry	1	2/20/2020 12:07 PM
cis-1,2-Dichloroethene	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
cis-1,3-Dichloropropene	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
Dibromochloromethane	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
Dibromomethane	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
Dichlorodifluoromethane	ND		140	µg/Kg-dry	1	2/20/2020 12:07 PM
Diethyl ether	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
Ethylbenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
Hexachloroethane	ND		140	µg/Kg-dry	1	2/20/2020 12:07 PM
Isopropylbenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
m,p-Xylene	ND		82	µg/Kg-dry	1	2/20/2020 12:07 PM
Methyl iodide	ND		680	µg/Kg-dry	1	2/20/2020 12:07 PM
Methyl tert-butyl ether	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
Methylene chloride	ND		340	µg/Kg-dry	1	2/20/2020 12:07 PM
Naphthalene	ND		140	µg/Kg-dry	1	2/20/2020 12:07 PM
n-Propylbenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
o-Xylene	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
Styrene	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
Tetrachloroethene	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
Toluene	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
trans-1,2-Dichloroethene	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
trans-1,3-Dichloropropene	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
trans-1,4-Dichloro-2-butene	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
Trichloroethene	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
Trichlorofluoromethane	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
Vinyl acetate	ND		340	µg/Kg-dry	1	2/20/2020 12:07 PM
Vinyl chloride	ND		41	µg/Kg-dry	1	2/20/2020 12:07 PM
Xylenes, Total	ND		120	µg/Kg-dry	1	2/20/2020 12:07 PM
Surr: 1,2-Dichloroethane-d4	*110*		*70-130*	*%REC*	1	2/20/2020 12:07 PM
Surr: 4-Bromofluorobenzene	*101*		*70-130*	*%REC*	1	2/20/2020 12:07 PM
Surr: Dibromofluoromethane	*96.4*		*70-130*	*%REC*	1	2/20/2020 12:07 PM
Surr: Toluene-d8	*95.2*		*70-130*	*%REC*	1	2/20/2020 12:07 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 13:44 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-7 11-12'
Lab ID: 20021006-45
Collection Date: 2/13/2020 11:20 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor		Date Analyzed
Biochemical Oxygen Demand	ND		24	mg/Kg-dry	1		2/20/2020 09:26 AM
MOISTURE			**SW3550C**				Analyst: **KTP**
Moisture	**18**		**0.10**	**% of sample**	1		2/18/2020 01:03 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**			Prep: E365.1 R2.0 2/17/20 13:08	Analyst: **JZB**
Phosphorus, Total	**380**		**130**	**mg/Kg-dry**	4		2/18/2020 11:29 AM
PH			**SW9045D**			Prep: EXTRACT 2/17/20 11:25	Analyst: **DNW**
pH	**8.19**		**0.100**	**s.u.**	1		2/18/2020 08:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-7 12-13'
Collection Date: 2/13/2020 11:25 AM

Work Order: 20021006
Lab ID: 20021006-46
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/18/20 10:48		Analyst: **RM**
Aroclor 1016	ND		79	µg/Kg-dry	1	2/18/2020 05:27 PM
Aroclor 1221	ND		79	µg/Kg-dry	1	2/18/2020 05:27 PM
Aroclor 1232	ND		79	µg/Kg-dry	1	2/18/2020 05:27 PM
Aroclor 1242	ND		79	µg/Kg-dry	1	2/18/2020 05:27 PM
Aroclor 1248	ND		79	µg/Kg-dry	1	2/18/2020 05:27 PM
Aroclor 1254	ND		79	µg/Kg-dry	1	2/18/2020 05:27 PM
Aroclor 1260	ND		79	µg/Kg-dry	1	2/18/2020 05:27 PM
Aroclor 1262	ND		79	µg/Kg-dry	1	2/18/2020 05:27 PM
Aroclor 1268	ND		79	µg/Kg-dry	1	2/18/2020 05:27 PM
Surr: Decachlorobiphenyl	*36.1*	S	*40-140*	*%REC*	1	2/18/2020 05:27 PM
Surr: Tetrachloro-m-xylene	*53.4*		*45-124*	*%REC*	1	2/18/2020 05:27 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/19/20 14:43		Analyst: **RSH**
Mercury	ND		0.020	mg/Kg-dry	1	2/19/2020 06:09 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:31		Analyst: **DSC**
Arsenic	**6.2**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:15 PM
Barium	**74**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:15 PM
Cadmium	ND		0.17	mg/Kg-dry	1	2/18/2020 09:15 PM
Chromium	**13**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:15 PM
Copper	**23**		**4.1**	**mg/Kg-dry**	10	2/19/2020 04:50 PM
Lead	**9.7**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:15 PM
Nickel	**21**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:15 PM
Selenium	ND		0.41	mg/Kg-dry	1	2/18/2020 09:15 PM
Silver	ND		0.41	mg/Kg-dry	1	2/18/2020 09:15 PM
Thorium	**4.1**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:15 PM
Uranium	**1.6**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:15 PM
Zinc	**60**		**8.3**	**mg/Kg-dry**	10	2/19/2020 04:50 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:10		Analyst: **EEW**
1-Methylnaphthalene	**12**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:17 PM
2-Chloronaphthalene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:17 PM
2-Methylnaphthalene	**6.9**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:17 PM
Acenaphthene	**15**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:17 PM
Acenaphthylene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:17 PM
Anthracene	**19**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:17 PM
Benzo(a)anthracene	**7.5**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:17 PM
Benzo(a)pyrene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:17 PM
Benzo(b)fluoranthene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:17 PM
Benzo(g,h,i)perylene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:17 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-7 12-13'
Lab ID: 20021006-46
Collection Date: 2/13/2020 11:25 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:17 PM
Chrysene	**5.2**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:17 PM
Dibenzo(a,h)anthracene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:17 PM
Fluoranthene	**22**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:17 PM
Fluorene	**12**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:17 PM
Indeno(1,2,3-cd)pyrene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:17 PM
Naphthalene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:17 PM
Phenanthrene	**61**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:17 PM
Pyrene	**23**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:17 PM
Surr: 2-Fluorobiphenyl	*95.4*		*20-140*	*%REC*	1	2/20/2020 05:17 PM
Surr: 4-Terphenyl-d14	*111*		*22-172*	*%REC*	1	2/20/2020 05:17 PM
Surr: Nitrobenzene-d5	*101*		*28-140*	*%REC*	1	2/20/2020 05:17 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 11:29		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
1,1,1-Trichloroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
1,1,2,2-Tetrachloroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
1,1,2-Trichloroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
1,1,2-Trichlorotrifluoroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
1,1-Dichloroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
1,1-Dichloroethene	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
1,2,3-Trichloropropane	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
1,2,4-Trichlorobenzene	ND		140	µg/Kg-dry	1	2/20/2020 12:24 PM
1,2,4-Trimethylbenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
1,2-Dibromo-3-chloropropane	ND		140	µg/Kg-dry	1	2/20/2020 12:24 PM
1,2-Dibromoethane	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
1,2-Dichlorobenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
1,2-Dichloroethane	ND		140	µg/Kg-dry	1	2/20/2020 12:24 PM
1,2-Dichloropropane	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
1,3,5-Trimethylbenzene	ND		140	µg/Kg-dry	1	2/20/2020 12:24 PM
1,3-Dichlorobenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
1,4-Dichlorobenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
2-Butanone	ND		270	µg/Kg-dry	1	2/20/2020 12:24 PM
2-Hexanone	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
2-Methylnaphthalene	ND		140	µg/Kg-dry	1	2/20/2020 12:24 PM
4-Methyl-2-pentanone	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
Acetone	ND		140	µg/Kg-dry	1	2/20/2020 12:24 PM
Acrylonitrile	ND		140	µg/Kg-dry	1	2/20/2020 12:24 PM
Benzene	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
Bromochloromethane	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
Bromodichloromethane	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-7 12-13'
Lab ID: 20021006-46
Collection Date: 2/13/2020 11:25 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
Bromomethane	ND		140	µg/Kg-dry	1	2/20/2020 12:24 PM
Carbon disulfide	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
Carbon tetrachloride	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
Chlorobenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
Chloroethane	ND		140	µg/Kg-dry	1	2/20/2020 12:24 PM
Chloroform	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
Chloromethane	ND		140	µg/Kg-dry	1	2/20/2020 12:24 PM
cis-1,2-Dichloroethene	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
cis-1,3-Dichloropropene	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
Dibromochloromethane	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
Dibromomethane	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
Dichlorodifluoromethane	ND		140	µg/Kg-dry	1	2/20/2020 12:24 PM
Diethyl ether	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
Ethylbenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
Hexachloroethane	ND		140	µg/Kg-dry	1	2/20/2020 12:24 PM
Isopropylbenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
m,p-Xylene	ND		81	µg/Kg-dry	1	2/20/2020 12:24 PM
Methyl iodide	ND		680	µg/Kg-dry	1	2/20/2020 12:24 PM
Methyl tert-butyl ether	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
Methylene chloride	ND		340	µg/Kg-dry	1	2/20/2020 12:24 PM
Naphthalene	ND		140	µg/Kg-dry	1	2/20/2020 12:24 PM
n-Propylbenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
o-Xylene	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
Styrene	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
Tetrachloroethene	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
Toluene	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
trans-1,2-Dichloroethene	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
trans-1,3-Dichloropropene	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
trans-1,4-Dichloro-2-butene	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
Trichloroethene	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
Trichlorofluoromethane	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
Vinyl acetate	ND		340	µg/Kg-dry	1	2/20/2020 12:24 PM
Vinyl chloride	ND		41	µg/Kg-dry	1	2/20/2020 12:24 PM
Xylenes, Total	ND		120	µg/Kg-dry	1	2/20/2020 12:24 PM
Surr: 1,2-Dichloroethane-d4	*110*		*70-130*	*%REC*	1	2/20/2020 12:24 PM
Surr: 4-Bromofluorobenzene	*104*		*70-130*	*%REC*	1	2/20/2020 12:24 PM
Surr: Dibromofluoromethane	*94.5*		*70-130*	*%REC*	1	2/20/2020 12:24 PM
Surr: Toluene-d8	*97.6*		*70-130*	*%REC*	1	2/20/2020 12:24 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 13:44 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-7 12-13'
Lab ID: 20021006-46
Collection Date: 2/13/2020 11:25 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor		Date Analyzed
Biochemical Oxygen Demand	ND		24	mg/Kg-dry	1		2/20/2020 09:26 AM
MOISTURE			**SW3550C**				Analyst: **KTP**
Moisture	**18**		**0.10**	**% of sample**	1		2/18/2020 01:03 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0	2/17/20 13:08	Analyst: **JZB**
Phosphorus, Total	**400**		**130**	**mg/Kg-dry**	4		2/18/2020 11:30 AM
PH			**SW9045D**		Prep: EXTRACT	2/17/20 11:25	Analyst: **DNW**
pH	**8.26**		**0.100**	**s.u.**	1		2/18/2020 08:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-7 13-14'
Lab ID: 20021006-47
Collection Date: 2/13/2020 11:30 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/18/20 10:48		Analyst: **RM**
Aroclor 1016	ND		80	µg/Kg-dry	1	2/18/2020 05:43 PM
Aroclor 1221	ND		80	µg/Kg-dry	1	2/18/2020 05:43 PM
Aroclor 1232	ND		80	µg/Kg-dry	1	2/18/2020 05:43 PM
Aroclor 1242	ND		80	µg/Kg-dry	1	2/18/2020 05:43 PM
Aroclor 1248	ND		80	µg/Kg-dry	1	2/18/2020 05:43 PM
Aroclor 1254	ND		80	µg/Kg-dry	1	2/18/2020 05:43 PM
Aroclor 1260	ND		80	µg/Kg-dry	1	2/18/2020 05:43 PM
Aroclor 1262	ND		80	µg/Kg-dry	1	2/18/2020 05:43 PM
Aroclor 1268	ND		80	µg/Kg-dry	1	2/18/2020 05:43 PM
Surr: Decachlorobiphenyl	*81.0*		*40-140*	*%REC*	1	2/18/2020 05:43 PM
Surr: Tetrachloro-m-xylene	*79.3*		*45-124*	*%REC*	1	2/18/2020 05:43 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/19/20 14:43		Analyst: **RSH**
Mercury	**0.027**		**0.019**	**mg/Kg-dry**	1	2/19/2020 06:11 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:31		Analyst: **DSC**
Arsenic	**6.5**		**0.42**	**mg/Kg-dry**	1	2/18/2020 09:17 PM
Barium	**71**		**0.42**	**mg/Kg-dry**	1	2/18/2020 09:17 PM
Cadmium	ND		0.17	mg/Kg-dry	1	2/18/2020 09:17 PM
Chromium	**13**		**0.42**	**mg/Kg-dry**	1	2/18/2020 09:17 PM
Copper	**25**		**4.2**	**mg/Kg-dry**	10	2/19/2020 04:51 PM
Lead	**10**		**0.42**	**mg/Kg-dry**	1	2/18/2020 09:17 PM
Nickel	**21**		**0.42**	**mg/Kg-dry**	1	2/18/2020 09:17 PM
Selenium	ND		0.42	mg/Kg-dry	1	2/18/2020 09:17 PM
Silver	ND		0.42	mg/Kg-dry	1	2/18/2020 09:17 PM
Thorium	**4.0**		**0.42**	**mg/Kg-dry**	1	2/18/2020 09:17 PM
Uranium	**1.6**		**0.42**	**mg/Kg-dry**	1	2/18/2020 09:17 PM
Zinc	**53**		**8.5**	**mg/Kg-dry**	10	2/19/2020 04:51 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:10		Analyst: **EEW**
1-Methylnaphthalene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:32 PM
2-Chloronaphthalene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:32 PM
2-Methylnaphthalene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:32 PM
Acenaphthene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:32 PM
Acenaphthylene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:32 PM
Anthracene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:32 PM
Benzo(a)anthracene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:32 PM
Benzo(a)pyrene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:32 PM
Benzo(b)fluoranthene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:32 PM
Benzo(g,h,i)perylene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:32 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-7 13-14' **Lab ID:** 20021006-47
Collection Date: 2/13/2020 11:30 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:32 PM
Chrysene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:32 PM
Dibenzo(a,h)anthracene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:32 PM
Fluoranthene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:32 PM
Fluorene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:32 PM
Indeno(1,2,3-cd)pyrene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:32 PM
Naphthalene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:32 PM
Phenanthrene	**15**		**4.9**	**µg/Kg-dry**	1	2/20/2020 05:32 PM
Pyrene	ND		4.9	µg/Kg-dry	1	2/20/2020 05:32 PM
Surr: 2-Fluorobiphenyl	*86.6*		*20-140*	*%REC*	1	2/20/2020 05:32 PM
Surr: 4-Terphenyl-d14	*94.3*		*22-172*	*%REC*	1	2/20/2020 05:32 PM
Surr: Nitrobenzene-d5	*89.9*		*28-140*	*%REC*	1	2/20/2020 05:32 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 11:29		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
1,1,1-Trichloroethane	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
1,1,2,2-Tetrachloroethane	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
1,1,2-Trichloroethane	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
1,1,2-Trichlorotrifluoroethane	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
1,1-Dichloroethane	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
1,1-Dichloroethene	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
1,2,3-Trichloropropane	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
1,2,4-Trichlorobenzene	ND		130	µg/Kg-dry	1	2/20/2020 12:40 PM
1,2,4-Trimethylbenzene	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
1,2-Dibromo-3-chloropropane	ND		130	µg/Kg-dry	1	2/20/2020 12:40 PM
1,2-Dibromoethane	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
1,2-Dichlorobenzene	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
1,2-Dichloroethane	ND		130	µg/Kg-dry	1	2/20/2020 12:40 PM
1,2-Dichloropropane	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
1,3,5-Trimethylbenzene	ND		130	µg/Kg-dry	1	2/20/2020 12:40 PM
1,3-Dichlorobenzene	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
1,4-Dichlorobenzene	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
2-Butanone	ND		250	µg/Kg-dry	1	2/20/2020 12:40 PM
2-Hexanone	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
2-Methylnaphthalene	ND		130	µg/Kg-dry	1	2/20/2020 12:40 PM
4-Methyl-2-pentanone	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
Acetone	ND		130	µg/Kg-dry	1	2/20/2020 12:40 PM
Acrylonitrile	ND		130	µg/Kg-dry	1	2/20/2020 12:40 PM
Benzene	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
Bromochloromethane	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
Bromodichloromethane	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-7 13-14'
Lab ID: 20021006-47
Collection Date: 2/13/2020 11:30 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
Bromomethane	ND		130	µg/Kg-dry	1	2/20/2020 12:40 PM
Carbon disulfide	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
Carbon tetrachloride	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
Chlorobenzene	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
Chloroethane	ND		130	µg/Kg-dry	1	2/20/2020 12:40 PM
Chloroform	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
Chloromethane	ND		130	µg/Kg-dry	1	2/20/2020 12:40 PM
cis-1,2-Dichloroethene	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
cis-1,3-Dichloropropene	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
Dibromochloromethane	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
Dibromomethane	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
Dichlorodifluoromethane	ND		130	µg/Kg-dry	1	2/20/2020 12:40 PM
Diethyl ether	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
Ethylbenzene	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
Hexachloroethane	ND		130	µg/Kg-dry	1	2/20/2020 12:40 PM
Isopropylbenzene	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
m,p-Xylene	ND		76	µg/Kg-dry	1	2/20/2020 12:40 PM
Methyl iodide	ND		640	µg/Kg-dry	1	2/20/2020 12:40 PM
Methyl tert-butyl ether	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
Methylene chloride	ND		320	µg/Kg-dry	1	2/20/2020 12:40 PM
Naphthalene	ND		130	µg/Kg-dry	1	2/20/2020 12:40 PM
n-Propylbenzene	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
o-Xylene	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
Styrene	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
Tetrachloroethene	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
Toluene	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
trans-1,2-Dichloroethene	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
trans-1,3-Dichloropropene	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
trans-1,4-Dichloro-2-butene	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
Trichloroethene	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
Trichlorofluoromethane	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
Vinyl acetate	ND		320	µg/Kg-dry	1	2/20/2020 12:40 PM
Vinyl chloride	ND		38	µg/Kg-dry	1	2/20/2020 12:40 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	2/20/2020 12:40 PM
Surr: 1,2-Dichloroethane-d4	*109*		*70-130*	*%REC*	1	2/20/2020 12:40 PM
Surr: 4-Bromofluorobenzene	*104*		*70-130*	*%REC*	1	2/20/2020 12:40 PM
Surr: Dibromofluoromethane	*97.9*		*70-130*	*%REC*	1	2/20/2020 12:40 PM
Surr: Toluene-d8	*98.4*		*70-130*	*%REC*	1	2/20/2020 12:40 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 13:44 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-7 13-14'
Collection Date: 2/13/2020 11:30 AM

Work Order: 20021006
Lab ID: 20021006-47
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	ND		24	mg/Kg-dry	1	2/20/2020 09:26 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**17**		**0.10**	**% of sample**	1	2/18/2020 01:03 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/17/20 16:24	Analyst: **JZB**
Phosphorus, Total	**410**		**180**	**mg/Kg-dry**	5	2/18/2020 10:34 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 11:25	Analyst: **DNW**
pH	**8.19**		**0.100**	**s.u.**	1	2/18/2020 08:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-7 14-15'
Collection Date: 2/13/2020 11:35 AM

Work Order: 20021006
Lab ID: 20021006-48
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/18/20 10:48		Analyst: **RM**
Aroclor 1016	ND		77	µg/Kg-dry	1	2/18/2020 05:58 PM
Aroclor 1221	ND		77	µg/Kg-dry	1	2/18/2020 05:58 PM
Aroclor 1232	ND		77	µg/Kg-dry	1	2/18/2020 05:58 PM
Aroclor 1242	ND		77	µg/Kg-dry	1	2/18/2020 05:58 PM
Aroclor 1248	ND		77	µg/Kg-dry	1	2/18/2020 05:58 PM
Aroclor 1254	ND		77	µg/Kg-dry	1	2/18/2020 05:58 PM
Aroclor 1260	ND		77	µg/Kg-dry	1	2/18/2020 05:58 PM
Aroclor 1262	ND		77	µg/Kg-dry	1	2/18/2020 05:58 PM
Aroclor 1268	ND		77	µg/Kg-dry	1	2/18/2020 05:58 PM
Surr: Decachlorobiphenyl	*40.4*		*40-140*	*%REC*	1	2/18/2020 05:58 PM
Surr: Tetrachloro-m-xylene	*52.4*		*45-124*	*%REC*	1	2/18/2020 05:58 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/19/20 14:43		Analyst: **RSH**
Mercury	**0.024**		**0.019**	**mg/Kg-dry**	1	2/19/2020 06:20 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:31		Analyst: **DSC**
Arsenic	**5.7**		**0.43**	**mg/Kg-dry**	1	2/18/2020 09:18 PM
Barium	**63**		**0.43**	**mg/Kg-dry**	1	2/18/2020 09:18 PM
Cadmium	ND		0.17	mg/Kg-dry	1	2/18/2020 09:18 PM
Chromium	**11**		**0.43**	**mg/Kg-dry**	1	2/18/2020 09:18 PM
Copper	**38**		**4.3**	**mg/Kg-dry**	10	2/19/2020 04:53 PM
Lead	**8.7**		**0.43**	**mg/Kg-dry**	1	2/18/2020 09:18 PM
Nickel	**18**		**0.43**	**mg/Kg-dry**	1	2/18/2020 09:18 PM
Selenium	ND		0.43	mg/Kg-dry	1	2/18/2020 09:18 PM
Silver	ND		0.43	mg/Kg-dry	1	2/18/2020 09:18 PM
Thorium	**3.6**		**0.43**	**mg/Kg-dry**	1	2/18/2020 09:18 PM
Uranium	**1.5**		**0.43**	**mg/Kg-dry**	1	2/18/2020 09:18 PM
Zinc	**59**		**8.6**	**mg/Kg-dry**	10	2/19/2020 04:53 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:10		Analyst: **EEW**
1-Methylnaphthalene	**23**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:47 PM
2-Chloronaphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 05:47 PM
2-Methylnaphthalene	**6.8**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:47 PM
Acenaphthene	**27**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:47 PM
Acenaphthylene	ND		5.0	µg/Kg-dry	1	2/20/2020 05:47 PM
Anthracene	**25**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:47 PM
Benzo(a)anthracene	**13**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:47 PM
Benzo(a)pyrene	**7.2**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:47 PM
Benzo(b)fluoranthene	**5.3**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:47 PM
Benzo(g,h,i)perylene	ND		5.0	µg/Kg-dry	1	2/20/2020 05:47 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-7 14-15' **Lab ID:** 20021006-48
Collection Date: 2/13/2020 11:35 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.0	µg/Kg-dry	1	2/20/2020 05:47 PM
Chrysene	**8.0**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:47 PM
Dibenzo(a,h)anthracene	ND		5.0	µg/Kg-dry	1	2/20/2020 05:47 PM
Fluoranthene	**34**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:47 PM
Fluorene	**18**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:47 PM
Indeno(1,2,3-cd)pyrene	ND		5.0	µg/Kg-dry	1	2/20/2020 05:47 PM
Naphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 05:47 PM
Phenanthrene	**90**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:47 PM
Pyrene	**35**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:47 PM
Surr: 2-Fluorobiphenyl	*90.9*		*20-140*	*%REC*	1	2/20/2020 05:47 PM
Surr: 4-Terphenyl-d14	*95.2*		*22-172*	*%REC*	1	2/20/2020 05:47 PM
Surr: Nitrobenzene-d5	*94.2*		*28-140*	*%REC*	1	2/20/2020 05:47 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 11:29		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
1,1,1-Trichloroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
1,1,2,2-Tetrachloroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
1,1,2-Trichloroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
1,1,2-Trichlorotrifluoroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
1,1-Dichloroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
1,1-Dichloroethene	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
1,2,3-Trichloropropane	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
1,2,4-Trichlorobenzene	ND		140	µg/Kg-dry	1	2/20/2020 12:57 PM
1,2,4-Trimethylbenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
1,2-Dibromo-3-chloropropane	ND		140	µg/Kg-dry	1	2/20/2020 12:57 PM
1,2-Dibromoethane	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
1,2-Dichlorobenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
1,2-Dichloroethane	ND		140	µg/Kg-dry	1	2/20/2020 12:57 PM
1,2-Dichloropropane	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
1,3,5-Trimethylbenzene	ND		140	µg/Kg-dry	1	2/20/2020 12:57 PM
1,3-Dichlorobenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
1,4-Dichlorobenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
2-Butanone	ND		270	µg/Kg-dry	1	2/20/2020 12:57 PM
2-Hexanone	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
2-Methylnaphthalene	ND		140	µg/Kg-dry	1	2/20/2020 12:57 PM
4-Methyl-2-pentanone	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
Acetone	ND		140	µg/Kg-dry	1	2/20/2020 12:57 PM
Acrylonitrile	ND		140	µg/Kg-dry	1	2/20/2020 12:57 PM
Benzene	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
Bromochloromethane	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
Bromodichloromethane	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-7 14-15'
Lab ID: 20021006-48
Collection Date: 2/13/2020 11:35 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
Bromomethane	ND		140	µg/Kg-dry	1	2/20/2020 12:57 PM
Carbon disulfide	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
Carbon tetrachloride	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
Chlorobenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
Chloroethane	ND		140	µg/Kg-dry	1	2/20/2020 12:57 PM
Chloroform	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
Chloromethane	ND		140	µg/Kg-dry	1	2/20/2020 12:57 PM
cis-1,2-Dichloroethene	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
cis-1,3-Dichloropropene	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
Dibromochloromethane	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
Dibromomethane	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
Dichlorodifluoromethane	ND		140	µg/Kg-dry	1	2/20/2020 12:57 PM
Diethyl ether	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
Ethylbenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
Hexachloroethane	ND		140	µg/Kg-dry	1	2/20/2020 12:57 PM
Isopropylbenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
m,p-Xylene	ND		82	µg/Kg-dry	1	2/20/2020 12:57 PM
Methyl iodide	ND		680	µg/Kg-dry	1	2/20/2020 12:57 PM
Methyl tert-butyl ether	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
Methylene chloride	ND		340	µg/Kg-dry	1	2/20/2020 12:57 PM
Naphthalene	ND		140	µg/Kg-dry	1	2/20/2020 12:57 PM
n-Propylbenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
o-Xylene	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
Styrene	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
Tetrachloroethene	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
Toluene	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
trans-1,2-Dichloroethene	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
trans-1,3-Dichloropropene	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
trans-1,4-Dichloro-2-butene	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
Trichloroethene	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
Trichlorofluoromethane	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
Vinyl acetate	ND		340	µg/Kg-dry	1	2/20/2020 12:57 PM
Vinyl chloride	ND		41	µg/Kg-dry	1	2/20/2020 12:57 PM
Xylenes, Total	ND		120	µg/Kg-dry	1	2/20/2020 12:57 PM
Surr: 1,2-Dichloroethane-d4	*110*		*70-130*	*%REC*	1	2/20/2020 12:57 PM
Surr: 4-Bromofluorobenzene	*102*		*70-130*	*%REC*	1	2/20/2020 12:57 PM
Surr: Dibromofluoromethane	*95.6*		*70-130*	*%REC*	1	2/20/2020 12:57 PM
Surr: Toluene-d8	*96.2*		*70-130*	*%REC*	1	2/20/2020 12:57 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 13:44 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-7 14-15'
Lab ID: 20021006-48
Collection Date: 2/13/2020 11:35 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	ND		24	mg/Kg-dry	1	2/20/2020 09:26 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**17**		**0.10**	**% of sample**	1	2/18/2020 01:03 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/17/20 16:24	Analyst: **JZB**
Phosphorus, Total	**380**		**130**	**mg/Kg-dry**	5	2/18/2020 10:35 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 11:25	Analyst: **DNW**
pH	**8.17**		**0.100**	**s.u.**	1	2/18/2020 08:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-6 3-4'
Collection Date: 2/13/2020 12:35 PM

Work Order: 20021006
Lab ID: 20021006-49
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/18/20 10:48		Analyst: **RM**
Aroclor 1016	ND		520	µg/Kg-dry	1	2/18/2020 06:13 PM
Aroclor 1221	ND		520	µg/Kg-dry	1	2/18/2020 06:13 PM
Aroclor 1232	ND		520	µg/Kg-dry	1	2/18/2020 06:13 PM
Aroclor 1242	ND		520	µg/Kg-dry	1	2/18/2020 06:13 PM
Aroclor 1248	ND		520	µg/Kg-dry	1	2/18/2020 06:13 PM
Aroclor 1254	ND		520	µg/Kg-dry	1	2/18/2020 06:13 PM
Aroclor 1260	ND		520	µg/Kg-dry	1	2/18/2020 06:13 PM
Aroclor 1262	ND		520	µg/Kg-dry	1	2/18/2020 06:13 PM
Aroclor 1268	ND		520	µg/Kg-dry	1	2/18/2020 06:13 PM
Surr: Decachlorobiphenyl	*79.4*		*40-140*	*%REC*	1	2/18/2020 06:13 PM
Surr: Tetrachloro-m-xylene	*81.4*		*45-124*	*%REC*	1	2/18/2020 06:13 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/19/20 14:43		Analyst: **RSH**
Mercury	**0.10**		**0.033**	**mg/Kg-dry**	1	2/19/2020 06:22 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:32		Analyst: **DSC**
Arsenic	**8.5**		**0.59**	**mg/Kg-dry**	1	2/18/2020 09:42 PM
Barium	**66**		**0.59**	**mg/Kg-dry**	1	2/18/2020 09:42 PM
Cadmium	**13**		**0.24**	**mg/Kg-dry**	1	2/18/2020 09:42 PM
Chromium	**20**		**0.59**	**mg/Kg-dry**	1	2/18/2020 09:42 PM
Copper	**1,400**		**59**	**mg/Kg-dry**	100	2/19/2020 05:04 PM
Lead	**170**		**0.59**	**mg/Kg-dry**	1	2/18/2020 09:42 PM
Nickel	**17**		**0.59**	**mg/Kg-dry**	1	2/18/2020 09:42 PM
Selenium	**2.2**		**0.59**	**mg/Kg-dry**	1	2/18/2020 09:42 PM
Silver	ND		0.59	mg/Kg-dry	1	2/18/2020 09:42 PM
Thorium	**2.2**		**0.59**	**mg/Kg-dry**	1	2/18/2020 09:42 PM
Uranium	**0.87**		**0.59**	**mg/Kg-dry**	1	2/18/2020 09:42 PM
Zinc	**1,300**		**120**	**mg/Kg-dry**	100	2/19/2020 05:04 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:10		Analyst: **EEW**
1-Methylnaphthalene	**150**		**25**	**µg/Kg-dry**	1	2/20/2020 06:03 PM
2-Chloronaphthalene	ND		25	µg/Kg-dry	1	2/20/2020 06:03 PM
2-Methylnaphthalene	**270**		**25**	**µg/Kg-dry**	1	2/20/2020 06:03 PM
Acenaphthene	**350**		**25**	**µg/Kg-dry**	1	2/20/2020 06:03 PM
Acenaphthylene	ND		25	µg/Kg-dry	1	2/20/2020 06:03 PM
Anthracene	**650**		**25**	**µg/Kg-dry**	1	2/20/2020 06:03 PM
Benzo(a)anthracene	**820**		**25**	**µg/Kg-dry**	1	2/20/2020 06:03 PM
Benzo(a)pyrene	**580**		**25**	**µg/Kg-dry**	1	2/20/2020 06:03 PM
Benzo(b)fluoranthene	**900**		**25**	**µg/Kg-dry**	1	2/20/2020 06:03 PM
Benzo(g,h,i)perylene	**340**		**25**	**µg/Kg-dry**	1	2/20/2020 06:03 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-6 3-4' **Lab ID:** 20021006-49
Collection Date: 2/13/2020 12:35 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**320**		**25**	**µg/Kg-dry**	1	2/20/2020 06:03 PM
Chrysene	**890**		**25**	**µg/Kg-dry**	1	2/20/2020 06:03 PM
Dibenzo(a,h)anthracene	**70**		**25**	**µg/Kg-dry**	1	2/20/2020 06:03 PM
Fluoranthene	**2,400**		**25**	**µg/Kg-dry**	1	2/20/2020 06:03 PM
Fluorene	**290**		**25**	**µg/Kg-dry**	1	2/20/2020 06:03 PM
Indeno(1,2,3-cd)pyrene	**430**		**25**	**µg/Kg-dry**	1	2/20/2020 06:03 PM
Naphthalene	**520**		**25**	**µg/Kg-dry**	1	2/20/2020 06:03 PM
Phenanthrene	**2,300**		**25**	**µg/Kg-dry**	1	2/20/2020 06:03 PM
Pyrene	**1,500**		**25**	**µg/Kg-dry**	1	2/20/2020 06:03 PM
Surr: 2-Fluorobiphenyl	*89.3*		*20-140*	*%REC*	1	2/20/2020 06:03 PM
Surr: 4-Terphenyl-d14	*84.5*		*22-172*	*%REC*	1	2/20/2020 06:03 PM
Surr: Nitrobenzene-d5	*80.4*		*28-140*	*%REC*	1	2/20/2020 06:03 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 11:29		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
1,1,1-Trichloroethane	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
1,1,2,2-Tetrachloroethane	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
1,1,2-Trichloroethane	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
1,1,2-Trichlorotrifluoroethane	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
1,1-Dichloroethane	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
1,1-Dichloroethene	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
1,2,3-Trichloropropane	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
1,2,4-Trichlorobenzene	ND		240	µg/Kg-dry	1	2/20/2020 01:13 AM
1,2,4-Trimethylbenzene	**89**		**73**	**µg/Kg-dry**	1	2/20/2020 01:13 AM
1,2-Dibromo-3-chloropropane	ND		240	µg/Kg-dry	1	2/20/2020 01:13 AM
1,2-Dibromoethane	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
1,2-Dichlorobenzene	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
1,2-Dichloroethane	ND		240	µg/Kg-dry	1	2/20/2020 01:13 AM
1,2-Dichloropropane	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
1,3,5-Trimethylbenzene	ND		240	µg/Kg-dry	1	2/20/2020 01:13 AM
1,3-Dichlorobenzene	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
1,4-Dichlorobenzene	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
2-Butanone	ND		490	µg/Kg-dry	1	2/20/2020 01:13 AM
2-Hexanone	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
2-Methylnaphthalene	**590**		**240**	**µg/Kg-dry**	1	2/20/2020 01:13 AM
4-Methyl-2-pentanone	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
Acetone	ND		240	µg/Kg-dry	1	2/20/2020 01:13 AM
Acrylonitrile	ND		240	µg/Kg-dry	1	2/20/2020 01:13 AM
Benzene	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
Bromochloromethane	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
Bromodichloromethane	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-6 3-4'
Collection Date: 2/13/2020 12:35 PM

Work Order: 20021006
Lab ID: 20021006-49
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
Bromomethane	ND		240	µg/Kg-dry	1	2/20/2020 01:13 AM
Carbon disulfide	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
Carbon tetrachloride	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
Chlorobenzene	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
Chloroethane	ND		240	µg/Kg-dry	1	2/20/2020 01:13 AM
Chloroform	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
Chloromethane	ND		240	µg/Kg-dry	1	2/20/2020 01:13 AM
cis-1,2-Dichloroethene	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
cis-1,3-Dichloropropene	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
Dibromochloromethane	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
Dibromomethane	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
Dichlorodifluoromethane	ND		240	µg/Kg-dry	1	2/20/2020 01:13 AM
Diethyl ether	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
Ethylbenzene	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
Hexachloroethane	ND		240	µg/Kg-dry	1	2/20/2020 01:13 AM
Isopropylbenzene	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
m,p-Xylene	**150**	J	**150**	**µg/Kg-dry**	1	2/20/2020 01:13 AM
Methyl iodide	ND		1,200	µg/Kg-dry	1	2/20/2020 01:13 AM
Methyl tert-butyl ether	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
Methylene chloride	ND		610	µg/Kg-dry	1	2/20/2020 01:13 AM
Naphthalene	**610**		**240**	**µg/Kg-dry**	1	2/20/2020 01:13 AM
n-Propylbenzene	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
o-Xylene	**91**		**73**	**µg/Kg-dry**	1	2/20/2020 01:13 AM
Styrene	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
Tetrachloroethene	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
Toluene	**180**		**73**	**µg/Kg-dry**	1	2/20/2020 01:13 AM
trans-1,2-Dichloroethene	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
trans-1,3-Dichloropropene	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
trans-1,4-Dichloro-2-butene	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
Trichloroethene	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
Trichlorofluoromethane	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
Vinyl acetate	ND		610	µg/Kg-dry	1	2/20/2020 01:13 AM
Vinyl chloride	ND		73	µg/Kg-dry	1	2/20/2020 01:13 AM
Xylenes, Total	**240**		**220**	**µg/Kg-dry**	1	2/20/2020 01:13 AM
Surr: 1,2-Dichloroethane-d4	*105*		*70-130*	*%REC*	1	2/20/2020 01:13 AM
Surr: 4-Bromofluorobenzene	*98.7*		*70-130*	*%REC*	1	2/20/2020 01:13 AM
Surr: Dibromofluoromethane	*92.0*		*70-130*	*%REC*	1	2/20/2020 01:13 AM
Surr: Toluene-d8	*99.4*		*70-130*	*%REC*	1	2/20/2020 01:13 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 13:44 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-6 3-4'
Lab ID: 20021006-49
Collection Date: 2/13/2020 12:35 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**250**		**35**	**mg/Kg-dry**	1	2/20/2020 09:26 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**43**		**0.10**	**% of sample**	1	2/18/2020 01:03 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/17/20 16:24	Analyst: **JZB**
Phosphorus, Total	**250**		**89**	**mg/Kg-dry**	2	2/18/2020 10:36 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 11:25	Analyst: **DNW**
pH	**9.45**		**0.100**	**s.u.**	1	2/18/2020 08:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-6 8-9'
Collection Date: 2/13/2020 12:50 PM

Work Order: 20021006
Lab ID: 20021006-50
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/18/20 10:48		Analyst: **RM**
Aroclor 1016	ND		220	µg/Kg-dry	1	2/18/2020 06:29 PM
Aroclor 1221	ND		220	µg/Kg-dry	1	2/18/2020 06:29 PM
Aroclor 1232	ND		220	µg/Kg-dry	1	2/18/2020 06:29 PM
Aroclor 1242	ND		220	µg/Kg-dry	1	2/18/2020 06:29 PM
Aroclor 1248	ND		220	µg/Kg-dry	1	2/18/2020 06:29 PM
Aroclor 1254	ND		220	µg/Kg-dry	1	2/18/2020 06:29 PM
Aroclor 1260	ND		220	µg/Kg-dry	1	2/18/2020 06:29 PM
Aroclor 1262	ND		220	µg/Kg-dry	1	2/18/2020 06:29 PM
Aroclor 1268	ND		220	µg/Kg-dry	1	2/18/2020 06:29 PM
Surr: Decachlorobiphenyl	*76.9*		*40-140*	*%REC*	1	2/18/2020 06:29 PM
Surr: Tetrachloro-m-xylene	*79.8*		*45-124*	*%REC*	1	2/18/2020 06:29 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/19/20 14:43		Analyst: **RSH**
Mercury	**0.051**		**0.023**	**mg/Kg-dry**	1	2/19/2020 06:24 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:32		Analyst: **DSC**
Arsenic	**6.6**		**0.45**	**mg/Kg-dry**	1	2/18/2020 09:44 PM
Barium	**82**		**0.45**	**mg/Kg-dry**	1	2/18/2020 09:44 PM
Cadmium	**1.3**		**0.18**	**mg/Kg-dry**	1	2/18/2020 09:44 PM
Chromium	**30**		**0.45**	**mg/Kg-dry**	1	2/18/2020 09:44 PM
Copper	**140**		**4.5**	**mg/Kg-dry**	10	2/19/2020 05:06 PM
Lead	**23**		**0.45**	**mg/Kg-dry**	1	2/18/2020 09:44 PM
Nickel	**20**		**0.45**	**mg/Kg-dry**	1	2/18/2020 09:44 PM
Selenium	**0.67**		**0.45**	**mg/Kg-dry**	1	2/18/2020 09:44 PM
Silver	ND		0.45	mg/Kg-dry	1	2/18/2020 09:44 PM
Thorium	**4.3**		**0.45**	**mg/Kg-dry**	1	2/18/2020 09:44 PM
Uranium	**1.5**		**0.45**	**mg/Kg-dry**	1	2/18/2020 09:44 PM
Zinc	**170**		**8.9**	**mg/Kg-dry**	10	2/19/2020 05:06 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:10		Analyst: **EEW**
1-Methylnaphthalene	ND		11	µg/Kg-dry	1	2/20/2020 06:19 PM
2-Chloronaphthalene	ND		11	µg/Kg-dry	1	2/20/2020 06:19 PM
2-Methylnaphthalene	ND		11	µg/Kg-dry	1	2/20/2020 06:19 PM
Acenaphthene	ND		11	µg/Kg-dry	1	2/20/2020 06:19 PM
Acenaphthylene	ND		11	µg/Kg-dry	1	2/20/2020 06:19 PM
Anthracene	**11**		**11**	**µg/Kg-dry**	1	2/20/2020 06:19 PM
Benzo(a)anthracene	**24**		**11**	**µg/Kg-dry**	1	2/20/2020 06:19 PM
Benzo(a)pyrene	**34**		**11**	**µg/Kg-dry**	1	2/20/2020 06:19 PM
Benzo(b)fluoranthene	**32**		**11**	**µg/Kg-dry**	1	2/20/2020 06:19 PM
Benzo(g,h,i)perylene	**35**		**11**	**µg/Kg-dry**	1	2/20/2020 06:19 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-6 8-9' **Lab ID:** 20021006-50
Collection Date: 2/13/2020 12:50 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**11**		**11**	**µg/Kg-dry**	1	2/20/2020 06:19 PM
Chrysene	**34**		**11**	**µg/Kg-dry**	1	2/20/2020 06:19 PM
Dibenzo(a,h)anthracene	ND		11	µg/Kg-dry	1	2/20/2020 06:19 PM
Fluoranthene	**39**		**11**	**µg/Kg-dry**	1	2/20/2020 06:19 PM
Fluorene	ND		11	µg/Kg-dry	1	2/20/2020 06:19 PM
Indeno(1,2,3-cd)pyrene	**17**		**11**	**µg/Kg-dry**	1	2/20/2020 06:19 PM
Naphthalene	ND		11	µg/Kg-dry	1	2/20/2020 06:19 PM
Phenanthrene	**36**		**11**	**µg/Kg-dry**	1	2/20/2020 06:19 PM
Pyrene	**36**		**11**	**µg/Kg-dry**	1	2/20/2020 06:19 PM
Surr: 2-Fluorobiphenyl	*95.4*		*20-140*	*%REC*	1	2/20/2020 06:19 PM
Surr: 4-Terphenyl-d14	*92.8*		*22-172*	*%REC*	1	2/20/2020 06:19 PM
Surr: Nitrobenzene-d5	*100*		*28-140*	*%REC*	1	2/20/2020 06:19 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 11:29		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
1,1,1-Trichloroethane	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
1,1,2,2-Tetrachloroethane	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
1,1,2-Trichloroethane	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
1,1,2-Trichlorotrifluoroethane	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
1,1-Dichloroethane	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
1,1-Dichloroethene	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
1,2,3-Trichloropropane	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
1,2,4-Trichlorobenzene	ND		170	µg/Kg-dry	1	2/20/2020 01:29 AM
1,2,4-Trimethylbenzene	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
1,2-Dibromo-3-chloropropane	ND		170	µg/Kg-dry	1	2/20/2020 01:29 AM
1,2-Dibromoethane	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
1,2-Dichlorobenzene	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
1,2-Dichloroethane	ND		170	µg/Kg-dry	1	2/20/2020 01:29 AM
1,2-Dichloropropane	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
1,3,5-Trimethylbenzene	ND		170	µg/Kg-dry	1	2/20/2020 01:29 AM
1,3-Dichlorobenzene	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
1,4-Dichlorobenzene	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
2-Butanone	ND		330	µg/Kg-dry	1	2/20/2020 01:29 AM
2-Hexanone	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
2-Methylnaphthalene	ND		170	µg/Kg-dry	1	2/20/2020 01:29 AM
4-Methyl-2-pentanone	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
Acetone	ND		170	µg/Kg-dry	1	2/20/2020 01:29 AM
Acrylonitrile	ND		170	µg/Kg-dry	1	2/20/2020 01:29 AM
Benzene	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
Bromochloromethane	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
Bromodichloromethane	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-6 8-9'
Collection Date: 2/13/2020 12:50 PM

Work Order: 20021006
Lab ID: 20021006-50
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
Bromomethane	ND		170	µg/Kg-dry	1	2/20/2020 01:29 AM
Carbon disulfide	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
Carbon tetrachloride	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
Chlorobenzene	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
Chloroethane	ND		170	µg/Kg-dry	1	2/20/2020 01:29 AM
Chloroform	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
Chloromethane	ND		170	µg/Kg-dry	1	2/20/2020 01:29 AM
cis-1,2-Dichloroethene	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
cis-1,3-Dichloropropene	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
Dibromochloromethane	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
Dibromomethane	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
Dichlorodifluoromethane	ND		170	µg/Kg-dry	1	2/20/2020 01:29 AM
Diethyl ether	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
Ethylbenzene	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
Hexachloroethane	ND		170	µg/Kg-dry	1	2/20/2020 01:29 AM
Isopropylbenzene	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
m,p-Xylene	ND		99	µg/Kg-dry	1	2/20/2020 01:29 AM
Methyl iodide	ND		830	µg/Kg-dry	1	2/20/2020 01:29 AM
Methyl tert-butyl ether	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
Methylene chloride	ND		410	µg/Kg-dry	1	2/20/2020 01:29 AM
Naphthalene	ND		170	µg/Kg-dry	1	2/20/2020 01:29 AM
n-Propylbenzene	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
o-Xylene	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
Styrene	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
Tetrachloroethene	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
Toluene	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
trans-1,2-Dichloroethene	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
trans-1,3-Dichloropropene	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
trans-1,4-Dichloro-2-butene	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
Trichloroethene	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
Trichlorofluoromethane	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
Vinyl acetate	ND		410	µg/Kg-dry	1	2/20/2020 01:29 AM
Vinyl chloride	ND		50	µg/Kg-dry	1	2/20/2020 01:29 AM
Xylenes, Total	ND		150	µg/Kg-dry	1	2/20/2020 01:29 AM
Surr: 1,2-Dichloroethane-d4	*110*		*70-130*	*%REC*	1	2/20/2020 01:29 AM
Surr: 4-Bromofluorobenzene	*102*		*70-130*	*%REC*	1	2/20/2020 01:29 AM
Surr: Dibromofluoromethane	*95.9*		*70-130*	*%REC*	1	2/20/2020 01:29 AM
Surr: Toluene-d8	*96.8*		*70-130*	*%REC*	1	2/20/2020 01:29 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 13:44 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-6 8-9'
Lab ID: 20021006-50
Collection Date: 2/13/2020 12:50 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	ND		26	mg/Kg-dry	1	2/20/2020 09:26 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**23**		**0.10**	**% of sample**	1	2/18/2020 01:03 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/17/20 16:24	Analyst: **JZB**
Phosphorus, Total	**390**		**170**	**mg/Kg-dry**	5	2/18/2020 10:37 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 10:11	Analyst: **DNW**
pH	**7.97**		**0.100**	**s.u.**	1	2/17/2020 12:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-6 12-13'
Lab ID: 20021006-51
Collection Date: 2/13/2020 12:55 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/18/20 10:48		Analyst: **RM**
Aroclor 1016	ND		78	µg/Kg-dry	1	2/18/2020 06:44 PM
Aroclor 1221	ND		78	µg/Kg-dry	1	2/18/2020 06:44 PM
Aroclor 1232	ND		78	µg/Kg-dry	1	2/18/2020 06:44 PM
Aroclor 1242	ND		78	µg/Kg-dry	1	2/18/2020 06:44 PM
Aroclor 1248	ND		78	µg/Kg-dry	1	2/18/2020 06:44 PM
Aroclor 1254	ND		78	µg/Kg-dry	1	2/18/2020 06:44 PM
Aroclor 1260	ND		78	µg/Kg-dry	1	2/18/2020 06:44 PM
Aroclor 1262	ND		78	µg/Kg-dry	1	2/18/2020 06:44 PM
Aroclor 1268	ND		78	µg/Kg-dry	1	2/18/2020 06:44 PM
Surr: Decachlorobiphenyl	*62.6*		*40-140*	*%REC*	1	2/18/2020 06:44 PM
Surr: Tetrachloro-m-xylene	*69.8*		*45-124*	*%REC*	1	2/18/2020 06:44 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/19/20 14:43		Analyst: **RSH**
Mercury	**0.027**		**0.022**	**mg/Kg-dry**	1	2/19/2020 06:26 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:32		Analyst: **DSC**
Arsenic	**5.7**		**0.39**	**mg/Kg-dry**	1	2/18/2020 09:49 PM
Barium	**70**		**0.39**	**mg/Kg-dry**	1	2/18/2020 09:49 PM
Cadmium	ND		0.16	mg/Kg-dry	1	2/18/2020 09:49 PM
Chromium	**17**		**3.9**	**mg/Kg-dry**	10	2/19/2020 05:08 PM
Copper	**23**		**3.9**	**mg/Kg-dry**	10	2/19/2020 05:08 PM
Lead	**9.4**		**0.39**	**mg/Kg-dry**	1	2/18/2020 09:49 PM
Nickel	**19**		**0.39**	**mg/Kg-dry**	1	2/18/2020 09:49 PM
Selenium	ND		0.39	mg/Kg-dry	1	2/18/2020 09:49 PM
Silver	ND		0.39	mg/Kg-dry	1	2/18/2020 09:49 PM
Thorium	**3.8**		**0.39**	**mg/Kg-dry**	1	2/18/2020 09:49 PM
Uranium	**1.5**		**0.39**	**mg/Kg-dry**	1	2/18/2020 09:49 PM
Zinc	**66**		**7.9**	**mg/Kg-dry**	10	2/19/2020 05:08 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:10		Analyst: **EEW**
1-Methylnaphthalene	ND		5.1	µg/Kg-dry	1	2/20/2020 06:34 PM
2-Chloronaphthalene	ND		5.1	µg/Kg-dry	1	2/20/2020 06:34 PM
2-Methylnaphthalene	ND		5.1	µg/Kg-dry	1	2/20/2020 06:34 PM
Acenaphthene	ND		5.1	µg/Kg-dry	1	2/20/2020 06:34 PM
Acenaphthylene	ND		5.1	µg/Kg-dry	1	2/20/2020 06:34 PM
Anthracene	ND		5.1	µg/Kg-dry	1	2/20/2020 06:34 PM
Benzo(a)anthracene	ND		5.1	µg/Kg-dry	1	2/20/2020 06:34 PM
Benzo(a)pyrene	ND		5.1	µg/Kg-dry	1	2/20/2020 06:34 PM
Benzo(b)fluoranthene	ND		5.1	µg/Kg-dry	1	2/20/2020 06:34 PM
Benzo(g,h,i)perylene	ND		5.1	µg/Kg-dry	1	2/20/2020 06:34 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-6 12-13'
Lab ID: 20021006-51
Collection Date: 2/13/2020 12:55 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.1	µg/Kg-dry	1	2/20/2020 06:34 PM
Chrysene	ND		5.1	µg/Kg-dry	1	2/20/2020 06:34 PM
Dibenzo(a,h)anthracene	ND		5.1	µg/Kg-dry	1	2/20/2020 06:34 PM
Fluoranthene	ND		5.1	µg/Kg-dry	1	2/20/2020 06:34 PM
Fluorene	ND		5.1	µg/Kg-dry	1	2/20/2020 06:34 PM
Indeno(1,2,3-cd)pyrene	ND		5.1	µg/Kg-dry	1	2/20/2020 06:34 PM
Naphthalene	ND		5.1	µg/Kg-dry	1	2/20/2020 06:34 PM
Phenanthrene	**12**		**5.1**	**µg/Kg-dry**	1	2/20/2020 06:34 PM
Pyrene	ND		5.1	µg/Kg-dry	1	2/20/2020 06:34 PM
Surr: 2-Fluorobiphenyl	*93.4*		*20-140*	*%REC*	1	2/20/2020 06:34 PM
Surr: 4-Terphenyl-d14	*92.0*		*22-172*	*%REC*	1	2/20/2020 06:34 PM
Surr: Nitrobenzene-d5	*101*		*28-140*	*%REC*	1	2/20/2020 06:34 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 11:29		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
1,1,1-Trichloroethane	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
1,1,2,2-Tetrachloroethane	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
1,1,2-Trichloroethane	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
1,1,2-Trichlorotrifluoroethane	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
1,1-Dichloroethane	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
1,1-Dichloroethene	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
1,2,3-Trichloropropane	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
1,2,4-Trichlorobenzene	ND		130	µg/Kg-dry	1	2/20/2020 01:46 AM
1,2,4-Trimethylbenzene	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
1,2-Dibromo-3-chloropropane	ND		130	µg/Kg-dry	1	2/20/2020 01:46 AM
1,2-Dibromoethane	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
1,2-Dichlorobenzene	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
1,2-Dichloroethane	ND		130	µg/Kg-dry	1	2/20/2020 01:46 AM
1,2-Dichloropropane	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
1,3,5-Trimethylbenzene	ND		130	µg/Kg-dry	1	2/20/2020 01:46 AM
1,3-Dichlorobenzene	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
1,4-Dichlorobenzene	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
2-Butanone	ND		260	µg/Kg-dry	1	2/20/2020 01:46 AM
2-Hexanone	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
2-Methylnaphthalene	ND		130	µg/Kg-dry	1	2/20/2020 01:46 AM
4-Methyl-2-pentanone	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
Acetone	ND		130	µg/Kg-dry	1	2/20/2020 01:46 AM
Acrylonitrile	ND		130	µg/Kg-dry	1	2/20/2020 01:46 AM
Benzene	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
Bromochloromethane	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
Bromodichloromethane	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-6 12-13'
Collection Date: 2/13/2020 12:55 PM

Work Order: 20021006
Lab ID: 20021006-51
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
Bromomethane	ND		130	µg/Kg-dry	1	2/20/2020 01:46 AM
Carbon disulfide	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
Carbon tetrachloride	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
Chlorobenzene	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
Chloroethane	ND		130	µg/Kg-dry	1	2/20/2020 01:46 AM
Chloroform	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
Chloromethane	ND		130	µg/Kg-dry	1	2/20/2020 01:46 AM
cis-1,2-Dichloroethene	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
cis-1,3-Dichloropropene	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
Dibromochloromethane	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
Dibromomethane	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
Dichlorodifluoromethane	ND		130	µg/Kg-dry	1	2/20/2020 01:46 AM
Diethyl ether	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
Ethylbenzene	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
Hexachloroethane	ND		130	µg/Kg-dry	1	2/20/2020 01:46 AM
Isopropylbenzene	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
m,p-Xylene	ND		79	µg/Kg-dry	1	2/20/2020 01:46 AM
Methyl iodide	ND		660	µg/Kg-dry	1	2/20/2020 01:46 AM
Methyl tert-butyl ether	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
Methylene chloride	ND		330	µg/Kg-dry	1	2/20/2020 01:46 AM
Naphthalene	ND		130	µg/Kg-dry	1	2/20/2020 01:46 AM
n-Propylbenzene	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
o-Xylene	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
Styrene	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
Tetrachloroethene	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
Toluene	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
trans-1,2-Dichloroethene	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
trans-1,3-Dichloropropene	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
trans-1,4-Dichloro-2-butene	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
Trichloroethene	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
Trichlorofluoromethane	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
Vinyl acetate	ND		330	µg/Kg-dry	1	2/20/2020 01:46 AM
Vinyl chloride	ND		39	µg/Kg-dry	1	2/20/2020 01:46 AM
Xylenes, Total	ND		120	µg/Kg-dry	1	2/20/2020 01:46 AM
Surr: 1,2-Dichloroethane-d4	*111*		*70-130*	*%REC*	1	2/20/2020 01:46 AM
Surr: 4-Bromofluorobenzene	*103*		*70-130*	*%REC*	1	2/20/2020 01:46 AM
Surr: Dibromofluoromethane	*96.0*		*70-130*	*%REC*	1	2/20/2020 01:46 AM
Surr: Toluene-d8	*102*		*70-130*	*%REC*	1	2/20/2020 01:46 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 13:44 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-6 12-13'
Lab ID: 20021006-51
Collection Date: 2/13/2020 12:55 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**26**		**24**	**mg/Kg-dry**	1	2/20/2020 09:26 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**18**		**0.10**	**% of sample**	1	2/18/2020 01:03 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/17/20 16:24	Analyst: **JZB**
Phosphorus, Total	**450**		**360**	**mg/Kg-dry**	10	2/18/2020 10:49 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 10:11	Analyst: **DNW**
pH	**8.30**		**0.100**	**s.u.**	1	2/17/2020 12:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-6 13-14'
Lab ID: 20021006-52
Collection Date: 2/13/2020 01:00 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/18/20 10:48		Analyst: **RM**
Aroclor 1016	ND		78	µg/Kg-dry	1	2/18/2020 06:59 PM
Aroclor 1221	ND		78	µg/Kg-dry	1	2/18/2020 06:59 PM
Aroclor 1232	ND		78	µg/Kg-dry	1	2/18/2020 06:59 PM
Aroclor 1242	ND		78	µg/Kg-dry	1	2/18/2020 06:59 PM
Aroclor 1248	ND		78	µg/Kg-dry	1	2/18/2020 06:59 PM
Aroclor 1254	ND		78	µg/Kg-dry	1	2/18/2020 06:59 PM
Aroclor 1260	ND		78	µg/Kg-dry	1	2/18/2020 06:59 PM
Aroclor 1262	ND		78	µg/Kg-dry	1	2/18/2020 06:59 PM
Aroclor 1268	ND		78	µg/Kg-dry	1	2/18/2020 06:59 PM
Surr: Decachlorobiphenyl	*63.8*		*40-140*	*%REC*	1	2/18/2020 06:59 PM
Surr: Tetrachloro-m-xylene	*68.7*		*45-124*	*%REC*	1	2/18/2020 06:59 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/19/20 14:43		Analyst: **RSH**
Mercury	**0.024**		**0.021**	**mg/Kg-dry**	1	2/19/2020 06:28 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:32		Analyst: **DSC**
Arsenic	**6.8**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:51 PM
Barium	**75**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:51 PM
Cadmium	ND		0.16	mg/Kg-dry	1	2/18/2020 09:51 PM
Chromium	**18**		**4.1**	**mg/Kg-dry**	10	2/19/2020 05:09 PM
Copper	**29**		**4.1**	**mg/Kg-dry**	10	2/19/2020 05:09 PM
Lead	**11**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:51 PM
Nickel	**21**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:51 PM
Selenium	ND		0.41	mg/Kg-dry	1	2/18/2020 09:51 PM
Silver	ND		0.41	mg/Kg-dry	1	2/18/2020 09:51 PM
Thorium	**4.2**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:51 PM
Uranium	**1.8**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:51 PM
Zinc	**77**		**8.2**	**mg/Kg-dry**	10	2/19/2020 05:09 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:10		Analyst: **EEW**
1-Methylnaphthalene	ND		4.9	µg/Kg-dry	1	2/20/2020 06:50 PM
2-Chloronaphthalene	ND		4.9	µg/Kg-dry	1	2/20/2020 06:50 PM
2-Methylnaphthalene	ND		4.9	µg/Kg-dry	1	2/20/2020 06:50 PM
Acenaphthene	ND		4.9	µg/Kg-dry	1	2/20/2020 06:50 PM
Acenaphthylene	ND		4.9	µg/Kg-dry	1	2/20/2020 06:50 PM
Anthracene	ND		4.9	µg/Kg-dry	1	2/20/2020 06:50 PM
Benzo(a)anthracene	ND		4.9	µg/Kg-dry	1	2/20/2020 06:50 PM
Benzo(a)pyrene	ND		4.9	µg/Kg-dry	1	2/20/2020 06:50 PM
Benzo(b)fluoranthene	ND		4.9	µg/Kg-dry	1	2/20/2020 06:50 PM
Benzo(g,h,i)perylene	ND		4.9	µg/Kg-dry	1	2/20/2020 06:50 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-6 13-14' **Lab ID:** 20021006-52
Collection Date: 2/13/2020 01:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		4.9	µg/Kg-dry	1	2/20/2020 06:50 PM
Chrysene	ND		4.9	µg/Kg-dry	1	2/20/2020 06:50 PM
Dibenzo(a,h)anthracene	ND		4.9	µg/Kg-dry	1	2/20/2020 06:50 PM
Fluoranthene	ND		4.9	µg/Kg-dry	1	2/20/2020 06:50 PM
Fluorene	ND		4.9	µg/Kg-dry	1	2/20/2020 06:50 PM
Indeno(1,2,3-cd)pyrene	ND		4.9	µg/Kg-dry	1	2/20/2020 06:50 PM
Naphthalene	ND		4.9	µg/Kg-dry	1	2/20/2020 06:50 PM
Phenanthrene	**9.2**		**4.9**	**µg/Kg-dry**	1	2/20/2020 06:50 PM
Pyrene	ND		4.9	µg/Kg-dry	1	2/20/2020 06:50 PM
Surr: 2-Fluorobiphenyl	*91.6*		*20-140*	*%REC*	1	2/20/2020 06:50 PM
Surr: 4-Terphenyl-d14	*93.7*		*22-172*	*%REC*	1	2/20/2020 06:50 PM
Surr: Nitrobenzene-d5	*103*		*28-140*	*%REC*	1	2/20/2020 06:50 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 11:29		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
1,1,1-Trichloroethane	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
1,1,2,2-Tetrachloroethane	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
1,1,2-Trichloroethane	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
1,1,2-Trichlorotrifluoroethane	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
1,1-Dichloroethane	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
1,1-Dichloroethene	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
1,2,3-Trichloropropane	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
1,2,4-Trichlorobenzene	ND		140	µg/Kg-dry	1	2/20/2020 02:02 AM
1,2,4-Trimethylbenzene	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
1,2-Dibromo-3-chloropropane	ND		140	µg/Kg-dry	1	2/20/2020 02:02 AM
1,2-Dibromoethane	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
1,2-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
1,2-Dichloroethane	ND		140	µg/Kg-dry	1	2/20/2020 02:02 AM
1,2-Dichloropropane	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
1,3,5-Trimethylbenzene	ND		140	µg/Kg-dry	1	2/20/2020 02:02 AM
1,3-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
1,4-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
2-Butanone	ND		280	µg/Kg-dry	1	2/20/2020 02:02 AM
2-Hexanone	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
2-Methylnaphthalene	ND		140	µg/Kg-dry	1	2/20/2020 02:02 AM
4-Methyl-2-pentanone	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
Acetone	ND		140	µg/Kg-dry	1	2/20/2020 02:02 AM
Acrylonitrile	ND		140	µg/Kg-dry	1	2/20/2020 02:02 AM
Benzene	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
Bromochloromethane	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
Bromodichloromethane	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-6 13-14'
Collection Date: 2/13/2020 01:00 PM

Work Order: 20021006
Lab ID: 20021006-52
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
Bromomethane	ND		140	µg/Kg-dry	1	2/20/2020 02:02 AM
Carbon disulfide	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
Carbon tetrachloride	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
Chlorobenzene	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
Chloroethane	ND		140	µg/Kg-dry	1	2/20/2020 02:02 AM
Chloroform	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
Chloromethane	ND		140	µg/Kg-dry	1	2/20/2020 02:02 AM
cis-1,2-Dichloroethene	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
cis-1,3-Dichloropropene	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
Dibromochloromethane	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
Dibromomethane	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
Dichlorodifluoromethane	ND		140	µg/Kg-dry	1	2/20/2020 02:02 AM
Diethyl ether	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
Ethylbenzene	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
Hexachloroethane	ND		140	µg/Kg-dry	1	2/20/2020 02:02 AM
Isopropylbenzene	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
m,p-Xylene	ND		85	µg/Kg-dry	1	2/20/2020 02:02 AM
Methyl iodide	ND		710	µg/Kg-dry	1	2/20/2020 02:02 AM
Methyl tert-butyl ether	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
Methylene chloride	ND		360	µg/Kg-dry	1	2/20/2020 02:02 AM
Naphthalene	ND		140	µg/Kg-dry	1	2/20/2020 02:02 AM
n-Propylbenzene	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
o-Xylene	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
Styrene	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
Tetrachloroethene	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
Toluene	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
trans-1,2-Dichloroethene	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
trans-1,3-Dichloropropene	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
trans-1,4-Dichloro-2-butene	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
Trichloroethene	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
Trichlorofluoromethane	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
Vinyl acetate	ND		360	µg/Kg-dry	1	2/20/2020 02:02 AM
Vinyl chloride	ND		43	µg/Kg-dry	1	2/20/2020 02:02 AM
Xylenes, Total	ND		130	µg/Kg-dry	1	2/20/2020 02:02 AM
Surr: 1,2-Dichloroethane-d4	*108*		*70-130*	*%REC*	1	2/20/2020 02:02 AM
Surr: 4-Bromofluorobenzene	*110*		*70-130*	*%REC*	1	2/20/2020 02:02 AM
Surr: Dibromofluoromethane	*93.2*		*70-130*	*%REC*	1	2/20/2020 02:02 AM
Surr: Toluene-d8	*98.3*		*70-130*	*%REC*	1	2/20/2020 02:02 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 13:44 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-6 13-14'
Lab ID: 20021006-52
Collection Date: 2/13/2020 01:00 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	ND		24	mg/Kg-dry	1	2/20/2020 09:26 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**18**		**0.10**	**% of sample**	1	2/18/2020 01:03 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/17/20 16:24	Analyst: **JZB**
Phosphorus, Total	**450**		**140**	**mg/Kg-dry**	5	2/18/2020 10:39 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 10:11	Analyst: **DNW**
pH	**8.36**		**0.100**	**s.u.**	1	2/17/2020 12:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-6 14-15'
Lab ID: 20021006-53
Collection Date: 2/13/2020 01:05 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/18/20 10:48		Analyst: **RM**
Aroclor 1016	ND		79	µg/Kg-dry	1	2/18/2020 07:46 PM
Aroclor 1221	ND		79	µg/Kg-dry	1	2/18/2020 07:46 PM
Aroclor 1232	ND		79	µg/Kg-dry	1	2/18/2020 07:46 PM
Aroclor 1242	ND		79	µg/Kg-dry	1	2/18/2020 07:46 PM
Aroclor 1248	ND		79	µg/Kg-dry	1	2/18/2020 07:46 PM
Aroclor 1254	ND		79	µg/Kg-dry	1	2/18/2020 07:46 PM
Aroclor 1260	ND		79	µg/Kg-dry	1	2/18/2020 07:46 PM
Aroclor 1262	ND		79	µg/Kg-dry	1	2/18/2020 07:46 PM
Aroclor 1268	ND		79	µg/Kg-dry	1	2/18/2020 07:46 PM
Surr: Decachlorobiphenyl	*44.9*		*40-140*	*%REC*	1	2/18/2020 07:46 PM
Surr: Tetrachloro-m-xylene	*58.2*		*45-124*	*%REC*	1	2/18/2020 07:46 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/19/20 14:43		Analyst: **RSH**
Mercury	**0.025**		**0.023**	**mg/Kg-dry**	1	2/19/2020 06:30 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:32		Analyst: **DSC**
Arsenic	**7.4**		**0.46**	**mg/Kg-dry**	1	2/18/2020 09:53 PM
Barium	**72**		**0.46**	**mg/Kg-dry**	1	2/18/2020 09:53 PM
Cadmium	ND		0.18	mg/Kg-dry	1	2/18/2020 09:53 PM
Chromium	**22**		**4.6**	**mg/Kg-dry**	10	2/19/2020 05:11 PM
Copper	**17**		**0.46**	**mg/Kg-dry**	1	2/18/2020 09:53 PM
Lead	**9.3**		**0.46**	**mg/Kg-dry**	1	2/18/2020 09:53 PM
Nickel	**21**		**0.46**	**mg/Kg-dry**	1	2/18/2020 09:53 PM
Selenium	ND		0.46	mg/Kg-dry	1	2/18/2020 09:53 PM
Silver	ND		0.46	mg/Kg-dry	1	2/18/2020 09:53 PM
Thorium	**4.0**		**0.46**	**mg/Kg-dry**	1	2/18/2020 09:53 PM
Uranium	**1.9**		**0.46**	**mg/Kg-dry**	1	2/18/2020 09:53 PM
Zinc	**57**		**9.2**	**mg/Kg-dry**	10	2/19/2020 05:11 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:10		Analyst: **EEW**
1-Methylnaphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:05 PM
2-Chloronaphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:05 PM
2-Methylnaphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:05 PM
Acenaphthene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:05 PM
Acenaphthylene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:05 PM
Anthracene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:05 PM
Benzo(a)anthracene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:05 PM
Benzo(a)pyrene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:05 PM
Benzo(b)fluoranthene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:05 PM
Benzo(g,h,i)perylene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:05 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-6 14-15' **Lab ID:** 20021006-53
Collection Date: 2/13/2020 01:05 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:05 PM
Chrysene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:05 PM
Dibenzo(a,h)anthracene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:05 PM
Fluoranthene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:05 PM
Fluorene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:05 PM
Indeno(1,2,3-cd)pyrene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:05 PM
Naphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:05 PM
Phenanthrene	**12**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:05 PM
Pyrene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:05 PM
Surr: 2-Fluorobiphenyl	*92.6*		*20-140*	*%REC*	1	2/20/2020 07:05 PM
Surr: 4-Terphenyl-d14	*93.1*		*22-172*	*%REC*	1	2/20/2020 07:05 PM
Surr: Nitrobenzene-d5	*99.7*		*28-140*	*%REC*	1	2/20/2020 07:05 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 11:29		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
1,1,1-Trichloroethane	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
1,1,2,2-Tetrachloroethane	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
1,1,2-Trichloroethane	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
1,1,2-Trichlorotrifluoroethane	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
1,1-Dichloroethane	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
1,1-Dichloroethene	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
1,2,3-Trichloropropane	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
1,2,4-Trichlorobenzene	ND		140	µg/Kg-dry	1	2/20/2020 02:36 PM
1,2,4-Trimethylbenzene	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
1,2-Dibromo-3-chloropropane	ND		140	µg/Kg-dry	1	2/20/2020 02:36 PM
1,2-Dibromoethane	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
1,2-Dichlorobenzene	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
1,2-Dichloroethane	ND		140	µg/Kg-dry	1	2/20/2020 02:36 PM
1,2-Dichloropropane	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
1,3,5-Trimethylbenzene	ND		140	µg/Kg-dry	1	2/20/2020 02:36 PM
1,3-Dichlorobenzene	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
1,4-Dichlorobenzene	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
2-Butanone	ND		280	µg/Kg-dry	1	2/20/2020 02:36 PM
2-Hexanone	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
2-Methylnaphthalene	ND		140	µg/Kg-dry	1	2/20/2020 02:36 PM
4-Methyl-2-pentanone	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
Acetone	ND		140	µg/Kg-dry	1	2/20/2020 02:36 PM
Acrylonitrile	ND		140	µg/Kg-dry	1	2/20/2020 02:36 PM
Benzene	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
Bromochloromethane	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
Bromodichloromethane	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-6 14-15'
Lab ID: 20021006-53
Collection Date: 2/13/2020 01:05 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
Bromomethane	ND		140	µg/Kg-dry	1	2/20/2020 02:36 PM
Carbon disulfide	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
Carbon tetrachloride	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
Chlorobenzene	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
Chloroethane	ND		140	µg/Kg-dry	1	2/20/2020 02:36 PM
Chloroform	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
Chloromethane	ND		140	µg/Kg-dry	1	2/20/2020 02:36 PM
cis-1,2-Dichloroethene	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
cis-1,3-Dichloropropene	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
Dibromochloromethane	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
Dibromomethane	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
Dichlorodifluoromethane	ND		140	µg/Kg-dry	1	2/20/2020 02:36 PM
Diethyl ether	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
Ethylbenzene	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
Hexachloroethane	ND		140	µg/Kg-dry	1	2/20/2020 02:36 PM
Isopropylbenzene	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
m,p-Xylene	ND		84	µg/Kg-dry	1	2/20/2020 02:36 PM
Methyl iodide	ND		700	µg/Kg-dry	1	2/20/2020 02:36 PM
Methyl tert-butyl ether	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
Methylene chloride	ND		350	µg/Kg-dry	1	2/20/2020 02:36 PM
Naphthalene	ND		140	µg/Kg-dry	1	2/20/2020 02:36 PM
n-Propylbenzene	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
o-Xylene	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
Styrene	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
Tetrachloroethene	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
Toluene	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
trans-1,2-Dichloroethene	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
trans-1,3-Dichloropropene	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
trans-1,4-Dichloro-2-butene	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
Trichloroethene	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
Trichlorofluoromethane	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
Vinyl acetate	ND		350	µg/Kg-dry	1	2/20/2020 02:36 PM
Vinyl chloride	ND		42	µg/Kg-dry	1	2/20/2020 02:36 PM
Xylenes, Total	ND		130	µg/Kg-dry	1	2/20/2020 02:36 PM
Surr: 1,2-Dichloroethane-d4	*112*		*70-130*	*%REC*	1	2/20/2020 02:36 PM
Surr: 4-Bromofluorobenzene	*106*		*70-130*	*%REC*	1	2/20/2020 02:36 PM
Surr: Dibromofluoromethane	*97.9*		*70-130*	*%REC*	1	2/20/2020 02:36 PM
Surr: Toluene-d8	*98.6*		*70-130*	*%REC*	1	2/20/2020 02:36 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 13:44 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-6 14-15'
Lab ID: 20021006-53
Collection Date: 2/13/2020 01:05 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	ND		24	mg/Kg-dry	1	2/20/2020 09:26 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**18**		**0.10**	**% of sample**	1	2/18/2020 01:03 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/18/20 14:05	Analyst: **JZB**
Phosphorus, Total	**480**		**130**	**mg/Kg-dry**	4	2/19/2020 10:32 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 10:11	Analyst: **DNW**
pH	**8.36**		**0.100**	**s.u.**	1	2/17/2020 12:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-6 15-16'
Lab ID: 20021006-54
Collection Date: 2/13/2020 01:10 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/18/20 10:48		Analyst: **RM**
Aroclor 1016	ND		79	µg/Kg-dry	1	2/18/2020 08:01 PM
Aroclor 1221	ND		79	µg/Kg-dry	1	2/18/2020 08:01 PM
Aroclor 1232	ND		79	µg/Kg-dry	1	2/18/2020 08:01 PM
Aroclor 1242	ND		79	µg/Kg-dry	1	2/18/2020 08:01 PM
Aroclor 1248	ND		79	µg/Kg-dry	1	2/18/2020 08:01 PM
Aroclor 1254	ND		79	µg/Kg-dry	1	2/18/2020 08:01 PM
Aroclor 1260	ND		79	µg/Kg-dry	1	2/18/2020 08:01 PM
Aroclor 1262	ND		79	µg/Kg-dry	1	2/18/2020 08:01 PM
Aroclor 1268	ND		79	µg/Kg-dry	1	2/18/2020 08:01 PM
Surr: Decachlorobiphenyl	*52.8*		*40-140*	*%REC*	1	2/18/2020 08:01 PM
Surr: Tetrachloro-m-xylene	*54.3*		*45-124*	*%REC*	1	2/18/2020 08:01 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 11:48		Analyst: **RSH**
Mercury	ND		0.018	mg/Kg-dry	1	2/20/2020 02:45 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:32		Analyst: **DSC**
Arsenic	**6.2**		**0.43**	**mg/Kg-dry**	1	2/18/2020 09:55 PM
Barium	**72**		**0.43**	**mg/Kg-dry**	1	2/18/2020 09:55 PM
Cadmium	ND		0.17	mg/Kg-dry	1	2/18/2020 09:55 PM
Chromium	**17**		**4.3**	**mg/Kg-dry**	10	2/19/2020 05:13 PM
Copper	**23**		**4.3**	**mg/Kg-dry**	10	2/19/2020 05:13 PM
Lead	**9.3**		**0.43**	**mg/Kg-dry**	1	2/18/2020 09:55 PM
Nickel	**20**		**0.43**	**mg/Kg-dry**	1	2/18/2020 09:55 PM
Selenium	ND		0.43	mg/Kg-dry	1	2/18/2020 09:55 PM
Silver	ND		0.43	mg/Kg-dry	1	2/18/2020 09:55 PM
Thorium	**5.4**		**0.43**	**mg/Kg-dry**	1	2/18/2020 09:55 PM
Uranium	**1.6**		**0.43**	**mg/Kg-dry**	1	2/18/2020 09:55 PM
Zinc	**54**		**8.6**	**mg/Kg-dry**	10	2/19/2020 05:13 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:10		Analyst: **EEW**
1-Methylnaphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:21 PM
2-Chloronaphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:21 PM
2-Methylnaphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:21 PM
Acenaphthene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:21 PM
Acenaphthylene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:21 PM
Anthracene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:21 PM
Benzo(a)anthracene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:21 PM
Benzo(a)pyrene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:21 PM
Benzo(b)fluoranthene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:21 PM
Benzo(g,h,i)perylene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:21 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-6 15-16'
Lab ID: 20021006-54
Collection Date: 2/13/2020 01:10 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:21 PM
Chrysene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:21 PM
Dibenzo(a,h)anthracene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:21 PM
Fluoranthene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:21 PM
Fluorene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:21 PM
Indeno(1,2,3-cd)pyrene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:21 PM
Naphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:21 PM
Phenanthrene	**9.9**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:21 PM
Pyrene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:21 PM
Surr: 2-Fluorobiphenyl	*97.9*		*20-140*	*%REC*	1	2/20/2020 07:21 PM
Surr: 4-Terphenyl-d14	*109*		*22-172*	*%REC*	1	2/20/2020 07:21 PM
Surr: Nitrobenzene-d5	*110*		*28-140*	*%REC*	1	2/20/2020 07:21 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 11:29		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
1,1,1-Trichloroethane	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
1,1,2,2-Tetrachloroethane	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
1,1,2-Trichloroethane	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
1,1,2-Trichlorotrifluoroethane	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
1,1-Dichloroethane	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
1,1-Dichloroethene	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
1,2,3-Trichloropropane	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
1,2,4-Trichlorobenzene	ND		130	µg/Kg-dry	1	2/20/2020 02:53 PM
1,2,4-Trimethylbenzene	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
1,2-Dibromo-3-chloropropane	ND		130	µg/Kg-dry	1	2/20/2020 02:53 PM
1,2-Dibromoethane	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
1,2-Dichlorobenzene	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
1,2-Dichloroethane	ND		130	µg/Kg-dry	1	2/20/2020 02:53 PM
1,2-Dichloropropane	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
1,3,5-Trimethylbenzene	ND		130	µg/Kg-dry	1	2/20/2020 02:53 PM
1,3-Dichlorobenzene	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
1,4-Dichlorobenzene	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
2-Butanone	ND		260	µg/Kg-dry	1	2/20/2020 02:53 PM
2-Hexanone	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
2-Methylnaphthalene	ND		130	µg/Kg-dry	1	2/20/2020 02:53 PM
4-Methyl-2-pentanone	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
Acetone	ND		130	µg/Kg-dry	1	2/20/2020 02:53 PM
Acrylonitrile	ND		130	µg/Kg-dry	1	2/20/2020 02:53 PM
Benzene	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
Bromochloromethane	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
Bromodichloromethane	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-6 15-16'
Lab ID: 20021006-54
Collection Date: 2/13/2020 01:10 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
Bromomethane	ND		130	µg/Kg-dry	1	2/20/2020 02:53 PM
Carbon disulfide	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
Carbon tetrachloride	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
Chlorobenzene	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
Chloroethane	ND		130	µg/Kg-dry	1	2/20/2020 02:53 PM
Chloroform	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
Chloromethane	ND		130	µg/Kg-dry	1	2/20/2020 02:53 PM
cis-1,2-Dichloroethene	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
cis-1,3-Dichloropropene	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
Dibromochloromethane	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
Dibromomethane	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
Dichlorodifluoromethane	ND		130	µg/Kg-dry	1	2/20/2020 02:53 PM
Diethyl ether	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
Ethylbenzene	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
Hexachloroethane	ND		130	µg/Kg-dry	1	2/20/2020 02:53 PM
Isopropylbenzene	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
m,p-Xylene	ND		77	µg/Kg-dry	1	2/20/2020 02:53 PM
Methyl iodide	ND		640	µg/Kg-dry	1	2/20/2020 02:53 PM
Methyl tert-butyl ether	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
Methylene chloride	ND		320	µg/Kg-dry	1	2/20/2020 02:53 PM
Naphthalene	ND		130	µg/Kg-dry	1	2/20/2020 02:53 PM
n-Propylbenzene	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
o-Xylene	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
Styrene	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
Tetrachloroethene	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
Toluene	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
trans-1,2-Dichloroethene	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
trans-1,3-Dichloropropene	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
trans-1,4-Dichloro-2-butene	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
Trichloroethene	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
Trichlorofluoromethane	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
Vinyl acetate	ND		320	µg/Kg-dry	1	2/20/2020 02:53 PM
Vinyl chloride	ND		39	µg/Kg-dry	1	2/20/2020 02:53 PM
Xylenes, Total	ND		120	µg/Kg-dry	1	2/20/2020 02:53 PM
Surr: 1,2-Dichloroethane-d4	*98.4*		*70-130*	*%REC*	1	2/20/2020 02:53 PM
Surr: 4-Bromofluorobenzene	*98.2*		*70-130*	*%REC*	1	2/20/2020 02:53 PM
Surr: Dibromofluoromethane	*90.1*		*70-130*	*%REC*	1	2/20/2020 02:53 PM
Surr: Toluene-d8	*93.6*		*70-130*	*%REC*	1	2/20/2020 02:53 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 13:44 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-6 15-16'
Lab ID: 20021006-54
Collection Date: 2/13/2020 01:10 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	ND		24	mg/Kg-dry	1	2/20/2020 09:26 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**17**		**0.10**	**% of sample**	1	2/18/2020 01:03 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/17/20 16:24	Analyst: **JZB**
Phosphorus, Total	**410**		**270**	**mg/Kg-dry**	10	2/18/2020 10:51 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 10:11	Analyst: **DNW**
pH	**8.45**		**0.100**	**s.u.**	1	2/17/2020 12:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-6 16-17'
Collection Date: 2/13/2020 01:15 PM

Work Order: 20021006
Lab ID: 20021006-55
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/18/20 10:48		Analyst: **RM**
Aroclor 1016	ND		78	µg/Kg-dry	1	2/18/2020 08:16 PM
Aroclor 1221	ND		78	µg/Kg-dry	1	2/18/2020 08:16 PM
Aroclor 1232	ND		78	µg/Kg-dry	1	2/18/2020 08:16 PM
Aroclor 1242	ND		78	µg/Kg-dry	1	2/18/2020 08:16 PM
Aroclor 1248	ND		78	µg/Kg-dry	1	2/18/2020 08:16 PM
Aroclor 1254	ND		78	µg/Kg-dry	1	2/18/2020 08:16 PM
Aroclor 1260	ND		78	µg/Kg-dry	1	2/18/2020 08:16 PM
Aroclor 1262	ND		78	µg/Kg-dry	1	2/18/2020 08:16 PM
Aroclor 1268	ND		78	µg/Kg-dry	1	2/18/2020 08:16 PM
Surr: Decachlorobiphenyl	*52.8*		*40-140*	*%REC*	1	2/18/2020 08:16 PM
Surr: Tetrachloro-m-xylene	*56.2*		*45-124*	*%REC*	1	2/18/2020 08:16 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 11:48		Analyst: **RSH**
Mercury	ND		0.022	mg/Kg-dry	1	2/20/2020 02:47 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:32		Analyst: **DSC**
Arsenic	**6.2**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:56 PM
Barium	**72**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:56 PM
Cadmium	ND		0.17	mg/Kg-dry	1	2/18/2020 09:56 PM
Chromium	**19**		**4.1**	**mg/Kg-dry**	10	2/19/2020 05:14 PM
Copper	**23**		**4.1**	**mg/Kg-dry**	10	2/19/2020 05:14 PM
Lead	**9.5**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:56 PM
Nickel	**20**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:56 PM
Selenium	ND		0.41	mg/Kg-dry	1	2/18/2020 09:56 PM
Silver	ND		0.41	mg/Kg-dry	1	2/18/2020 09:56 PM
Thorium	**4.0**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:56 PM
Uranium	**1.7**		**0.41**	**mg/Kg-dry**	1	2/18/2020 09:56 PM
Zinc	**57**		**8.3**	**mg/Kg-dry**	10	2/19/2020 05:14 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:10		Analyst: **EEW**
1-Methylnaphthalene	ND		4.9	µg/Kg-dry	1	2/20/2020 01:46 PM
2-Chloronaphthalene	ND		4.9	µg/Kg-dry	1	2/20/2020 01:46 PM
2-Methylnaphthalene	ND		4.9	µg/Kg-dry	1	2/20/2020 01:46 PM
Acenaphthene	ND		4.9	µg/Kg-dry	1	2/20/2020 01:46 PM
Acenaphthylene	ND		4.9	µg/Kg-dry	1	2/20/2020 01:46 PM
Anthracene	ND		4.9	µg/Kg-dry	1	2/20/2020 01:46 PM
Benzo(a)anthracene	**6.1**		**4.9**	**µg/Kg-dry**	1	2/20/2020 01:46 PM
Benzo(a)pyrene	ND		4.9	µg/Kg-dry	1	2/20/2020 01:46 PM
Benzo(b)fluoranthene	**7.4**		**4.9**	**µg/Kg-dry**	1	2/20/2020 01:46 PM
Benzo(g,h,i)perylene	**8.1**		**4.9**	**µg/Kg-dry**	1	2/20/2020 01:46 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-6 16-17' **Lab ID:** 20021006-55
Collection Date: 2/13/2020 01:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		4.9	µg/Kg-dry	1	2/20/2020 01:46 PM
Chrysene	ND		4.9	µg/Kg-dry	1	2/20/2020 01:46 PM
Dibenzo(a,h)anthracene	ND		4.9	µg/Kg-dry	1	2/20/2020 01:46 PM
Fluoranthene	**4.9**		**4.9**	**µg/Kg-dry**	1	2/20/2020 01:46 PM
Fluorene	ND		4.9	µg/Kg-dry	1	2/20/2020 01:46 PM
Indeno(1,2,3-cd)pyrene	**6.4**		**4.9**	**µg/Kg-dry**	1	2/20/2020 01:46 PM
Naphthalene	ND		4.9	µg/Kg-dry	1	2/20/2020 01:46 PM
Phenanthrene	**12**		**4.9**	**µg/Kg-dry**	1	2/20/2020 01:46 PM
Pyrene	**6.4**		**4.9**	**µg/Kg-dry**	1	2/20/2020 01:46 PM
Surr: 2-Fluorobiphenyl	*96.3*		*20-140*	*%REC*	1	2/20/2020 01:46 PM
Surr: 4-Terphenyl-d14	*104*		*22-172*	*%REC*	1	2/20/2020 01:46 PM
Surr: Nitrobenzene-d5	*114*		*28-140*	*%REC*	1	2/20/2020 01:46 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 11:29		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
1,1,1-Trichloroethane	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
1,1,2,2-Tetrachloroethane	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
1,1,2-Trichloroethane	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
1,1,2-Trichlorotrifluoroethane	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
1,1-Dichloroethane	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
1,1-Dichloroethene	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
1,2,3-Trichloropropane	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
1,2,4-Trichlorobenzene	ND		140	µg/Kg-dry	1	2/20/2020 03:09 PM
1,2,4-Trimethylbenzene	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
1,2-Dibromo-3-chloropropane	ND		140	µg/Kg-dry	1	2/20/2020 03:09 PM
1,2-Dibromoethane	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
1,2-Dichlorobenzene	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
1,2-Dichloroethane	ND		140	µg/Kg-dry	1	2/20/2020 03:09 PM
1,2-Dichloropropane	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
1,3,5-Trimethylbenzene	ND		140	µg/Kg-dry	1	2/20/2020 03:09 PM
1,3-Dichlorobenzene	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
1,4-Dichlorobenzene	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
2-Butanone	ND		270	µg/Kg-dry	1	2/20/2020 03:09 PM
2-Hexanone	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
2-Methylnaphthalene	ND		140	µg/Kg-dry	1	2/20/2020 03:09 PM
4-Methyl-2-pentanone	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
Acetone	ND		140	µg/Kg-dry	1	2/20/2020 03:09 PM
Acrylonitrile	ND		140	µg/Kg-dry	1	2/20/2020 03:09 PM
Benzene	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
Bromochloromethane	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
Bromodichloromethane	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-6 16-17' **Lab ID:** 20021006-55
Collection Date: 2/13/2020 01:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
Bromomethane	ND		140	µg/Kg-dry	1	2/20/2020 03:09 PM
Carbon disulfide	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
Carbon tetrachloride	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
Chlorobenzene	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
Chloroethane	ND		140	µg/Kg-dry	1	2/20/2020 03:09 PM
Chloroform	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
Chloromethane	ND		140	µg/Kg-dry	1	2/20/2020 03:09 PM
cis-1,2-Dichloroethene	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
cis-1,3-Dichloropropene	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
Dibromochloromethane	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
Dibromomethane	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
Dichlorodifluoromethane	ND		140	µg/Kg-dry	1	2/20/2020 03:09 PM
Diethyl ether	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
Ethylbenzene	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
Hexachloroethane	ND		140	µg/Kg-dry	1	2/20/2020 03:09 PM
Isopropylbenzene	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
m,p-Xylene	ND		82	µg/Kg-dry	1	2/20/2020 03:09 PM
Methyl iodide	ND		680	µg/Kg-dry	1	2/20/2020 03:09 PM
Methyl tert-butyl ether	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
Methylene chloride	ND		340	µg/Kg-dry	1	2/20/2020 03:09 PM
Naphthalene	ND		140	µg/Kg-dry	1	2/20/2020 03:09 PM
n-Propylbenzene	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
o-Xylene	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
Styrene	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
Tetrachloroethene	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
Toluene	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
trans-1,2-Dichloroethene	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
trans-1,3-Dichloropropene	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
trans-1,4-Dichloro-2-butene	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
Trichloroethene	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
Trichlorofluoromethane	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
Vinyl acetate	ND		340	µg/Kg-dry	1	2/20/2020 03:09 PM
Vinyl chloride	ND		41	µg/Kg-dry	1	2/20/2020 03:09 PM
Xylenes, Total	ND		120	µg/Kg-dry	1	2/20/2020 03:09 PM
Surr: 1,2-Dichloroethane-d4	*101*		*70-130*	*%REC*	1	2/20/2020 03:09 PM
Surr: 4-Bromofluorobenzene	*98.0*		*70-130*	*%REC*	1	2/20/2020 03:09 PM
Surr: Dibromofluoromethane	*94.7*		*70-130*	*%REC*	1	2/20/2020 03:09 PM
Surr: Toluene-d8	*97.0*		*70-130*	*%REC*	1	2/20/2020 03:09 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 15:33 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-6 16-17'
Lab ID: 20021006-55
Collection Date: 2/13/2020 01:15 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**32**		**24**	**mg/Kg-dry**	1	2/20/2020 12:00 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**17**		**0.10**	**% of sample**	1	2/18/2020 01:03 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/17/20 16:24	Analyst: **JZB**
Phosphorus, Total	**400**		**170**	**mg/Kg-dry**	5	2/18/2020 10:52 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 10:11	Analyst: **DNW**
pH	**8.39**		**0.100**	**s.u.**	1	2/17/2020 12:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-11R 5-6' **Lab ID:** 20021006-56
Collection Date: 2/13/2020 01:30 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/18/20 10:48		Analyst: **RM**
Aroclor 1016	ND		78	µg/Kg-dry	1	2/18/2020 08:32 PM
Aroclor 1221	ND		78	µg/Kg-dry	1	2/18/2020 08:32 PM
Aroclor 1232	ND		78	µg/Kg-dry	1	2/18/2020 08:32 PM
Aroclor 1242	ND		78	µg/Kg-dry	1	2/18/2020 08:32 PM
Aroclor 1248	ND		78	µg/Kg-dry	1	2/18/2020 08:32 PM
Aroclor 1254	ND		78	µg/Kg-dry	1	2/18/2020 08:32 PM
Aroclor 1260	ND		78	µg/Kg-dry	1	2/18/2020 08:32 PM
Aroclor 1262	ND		78	µg/Kg-dry	1	2/18/2020 08:32 PM
Aroclor 1268	ND		78	µg/Kg-dry	1	2/18/2020 08:32 PM
Surr: Decachlorobiphenyl	*47.3*		*40-140*	*%REC*	1	2/18/2020 08:32 PM
Surr: Tetrachloro-m-xylene	*55.4*		*45-124*	*%REC*	1	2/18/2020 08:32 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 11:48		Analyst: **RSH**
Mercury	**0.043**		**0.020**	**mg/Kg-dry**	1	2/20/2020 02:49 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:32		Analyst: **DSC**
Arsenic	**5.8**		**0.40**	**mg/Kg-dry**	1	2/18/2020 09:58 PM
Barium	**73**		**0.40**	**mg/Kg-dry**	1	2/18/2020 09:58 PM
Cadmium	**0.28**		**0.16**	**mg/Kg-dry**	1	2/18/2020 09:58 PM
Chromium	**21**		**4.0**	**mg/Kg-dry**	10	2/19/2020 05:16 PM
Copper	**140**		**4.0**	**mg/Kg-dry**	10	2/19/2020 05:16 PM
Lead	**30**		**0.40**	**mg/Kg-dry**	1	2/18/2020 09:58 PM
Nickel	**21**		**0.40**	**mg/Kg-dry**	1	2/18/2020 09:58 PM
Selenium	ND		0.40	mg/Kg-dry	1	2/18/2020 09:58 PM
Silver	ND		0.40	mg/Kg-dry	1	2/18/2020 09:58 PM
Thorium	**3.9**		**0.40**	**mg/Kg-dry**	1	2/18/2020 09:58 PM
Uranium	**1.6**		**0.40**	**mg/Kg-dry**	1	2/18/2020 09:58 PM
Zinc	**130**		**8.1**	**mg/Kg-dry**	10	2/19/2020 05:16 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:10		Analyst: **EEW**
1-Methylnaphthalene	**19**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:36 PM
2-Chloronaphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:36 PM
2-Methylnaphthalene	**25**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:36 PM
Acenaphthene	**42**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:36 PM
Acenaphthylene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:36 PM
Anthracene	**36**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:36 PM
Benzo(a)anthracene	**33**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:36 PM
Benzo(a)pyrene	**23**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:36 PM
Benzo(b)fluoranthene	**25**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:36 PM
Benzo(g,h,i)perylene	**8.2**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:36 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-11R 5-6' **Lab ID:** 20021006-56
Collection Date: 2/13/2020 01:30 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**7.2**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:36 PM
Chrysene	**31**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:36 PM
Dibenzo(a,h)anthracene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:36 PM
Fluoranthene	**79**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:36 PM
Fluorene	**38**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:36 PM
Indeno(1,2,3-cd)pyrene	**10**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:36 PM
Naphthalene	**94**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:36 PM
Phenanthrene	**150**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:36 PM
Pyrene	**71**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:36 PM
Surr: 2-Fluorobiphenyl	*92.9*		*20-140*	*%REC*	1	2/20/2020 07:36 PM
Surr: 4-Terphenyl-d14	*93.4*		*22-172*	*%REC*	1	2/20/2020 07:36 PM
Surr: Nitrobenzene-d5	*102*		*28-140*	*%REC*	1	2/20/2020 07:36 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 11:29		Analyst: **BG**
1,1,1,2-Tetrachloroethane	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
1,1,1-Trichloroethane	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
1,1,2,2-Tetrachloroethane	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
1,1,2-Trichloroethane	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
1,1,2-Trichlorotrifluoroethane	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
1,1-Dichloroethane	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
1,1-Dichloroethene	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
1,2,3-Trichloropropane	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
1,2,4-Trichlorobenzene	ND		130	µg/Kg-dry	1	2/21/2020 04:21 AM
1,2,4-Trimethylbenzene	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
1,2-Dibromo-3-chloropropane	ND		130	µg/Kg-dry	1	2/21/2020 04:21 AM
1,2-Dibromoethane	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
1,2-Dichlorobenzene	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
1,2-Dichloroethane	ND		130	µg/Kg-dry	1	2/21/2020 04:21 AM
1,2-Dichloropropane	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
1,3,5-Trimethylbenzene	ND		130	µg/Kg-dry	1	2/21/2020 04:21 AM
1,3-Dichlorobenzene	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
1,4-Dichlorobenzene	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
2-Butanone	ND		270	µg/Kg-dry	1	2/21/2020 04:21 AM
2-Hexanone	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
2-Methylnaphthalene	ND		130	µg/Kg-dry	1	2/21/2020 04:21 AM
4-Methyl-2-pentanone	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
Acetone	ND		130	µg/Kg-dry	1	2/21/2020 04:21 AM
Acrylonitrile	ND		130	µg/Kg-dry	1	2/21/2020 04:21 AM
Benzene	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
Bromochloromethane	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
Bromodichloromethane	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-11R 5-6'
Collection Date: 2/13/2020 01:30 PM

Work Order: 20021006
Lab ID: 20021006-56
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
Bromomethane	ND		130	µg/Kg-dry	1	2/21/2020 04:21 AM
Carbon disulfide	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
Carbon tetrachloride	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
Chlorobenzene	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
Chloroethane	ND		130	µg/Kg-dry	1	2/21/2020 04:21 AM
Chloroform	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
Chloromethane	ND		130	µg/Kg-dry	1	2/21/2020 04:21 AM
cis-1,2-Dichloroethene	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
cis-1,3-Dichloropropene	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
Dibromochloromethane	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
Dibromomethane	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
Dichlorodifluoromethane	ND		130	µg/Kg-dry	1	2/21/2020 04:21 AM
Diethyl ether	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
Ethylbenzene	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
Hexachloroethane	ND		130	µg/Kg-dry	1	2/21/2020 04:21 AM
Isopropylbenzene	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
m,p-Xylene	ND		80	µg/Kg-dry	1	2/21/2020 04:21 AM
Methyl iodide	ND		670	µg/Kg-dry	1	2/21/2020 04:21 AM
Methyl tert-butyl ether	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
Methylene chloride	ND		330	µg/Kg-dry	1	2/21/2020 04:21 AM
Naphthalene	ND		130	µg/Kg-dry	1	2/21/2020 04:21 AM
n-Propylbenzene	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
o-Xylene	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
Styrene	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
Tetrachloroethene	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
Toluene	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
trans-1,2-Dichloroethene	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
trans-1,3-Dichloropropene	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
trans-1,4-Dichloro-2-butene	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
Trichloroethene	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
Trichlorofluoromethane	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
Vinyl acetate	ND		330	µg/Kg-dry	1	2/21/2020 04:21 AM
Vinyl chloride	ND		40	µg/Kg-dry	1	2/21/2020 04:21 AM
Xylenes, Total	ND		120	µg/Kg-dry	1	2/21/2020 04:21 AM
Surr: 1,2-Dichloroethane-d4	*94.8*		*70-130*	*%REC*	1	2/21/2020 04:21 AM
Surr: 4-Bromofluorobenzene	*95.6*		*70-130*	*%REC*	1	2/21/2020 04:21 AM
Surr: Dibromofluoromethane	*91.9*		*70-130*	*%REC*	1	2/21/2020 04:21 AM
Surr: Toluene-d8	*96.2*		*70-130*	*%REC*	1	2/21/2020 04:21 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 15:33 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-11R 5-6'
Lab ID: 20021006-56
Collection Date: 2/13/2020 01:30 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	ND		24	mg/Kg-dry	1	2/20/2020 12:00 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**18**		**0.10**	**% of sample**	1	2/18/2020 01:03 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/18/20 14:05	Analyst: **JZB**
Phosphorus, Total	**340**		**120**	**mg/Kg-dry**	4	2/19/2020 10:35 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 10:11	Analyst: **DNW**
pH	**8.44**		**0.100**	**s.u.**	1	2/17/2020 12:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-11R 6-7'
Lab ID: 20021006-57
Collection Date: 2/13/2020 01:35 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/18/20 10:48		Analyst: **RM**
Aroclor 1016	ND		80	µg/Kg-dry	1	2/18/2020 08:47 PM
Aroclor 1221	ND		80	µg/Kg-dry	1	2/18/2020 08:47 PM
Aroclor 1232	ND		80	µg/Kg-dry	1	2/18/2020 08:47 PM
Aroclor 1242	ND		80	µg/Kg-dry	1	2/18/2020 08:47 PM
Aroclor 1248	ND		80	µg/Kg-dry	1	2/18/2020 08:47 PM
Aroclor 1254	ND		80	µg/Kg-dry	1	2/18/2020 08:47 PM
Aroclor 1260	ND		80	µg/Kg-dry	1	2/18/2020 08:47 PM
Aroclor 1262	ND		80	µg/Kg-dry	1	2/18/2020 08:47 PM
Aroclor 1268	ND		80	µg/Kg-dry	1	2/18/2020 08:47 PM
Surr: Decachlorobiphenyl	*42.5*		*40-140*	*%REC*	1	2/18/2020 08:47 PM
Surr: Tetrachloro-m-xylene	*52.6*		*45-124*	*%REC*	1	2/18/2020 08:47 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 11:48		Analyst: **RSH**
Mercury	ND		0.022	mg/Kg-dry	1	2/20/2020 02:51 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:32		Analyst: **DSC**
Arsenic	**6.1**		**0.41**	**mg/Kg-dry**	1	2/18/2020 10:00 PM
Barium	**75**		**0.41**	**mg/Kg-dry**	1	2/18/2020 10:00 PM
Cadmium	ND		0.16	mg/Kg-dry	1	2/18/2020 10:00 PM
Chromium	**21**		**4.1**	**mg/Kg-dry**	10	2/19/2020 05:17 PM
Copper	**43**		**4.1**	**mg/Kg-dry**	10	2/19/2020 05:17 PM
Lead	**16**		**0.41**	**mg/Kg-dry**	1	2/18/2020 10:00 PM
Nickel	**21**		**0.41**	**mg/Kg-dry**	1	2/18/2020 10:00 PM
Selenium	ND		0.41	mg/Kg-dry	1	2/18/2020 10:00 PM
Silver	ND		0.41	mg/Kg-dry	1	2/18/2020 10:00 PM
Thorium	**4.1**		**0.41**	**mg/Kg-dry**	1	2/18/2020 10:00 PM
Uranium	**1.7**		**0.41**	**mg/Kg-dry**	1	2/18/2020 10:00 PM
Zinc	**74**		**8.1**	**mg/Kg-dry**	10	2/19/2020 05:17 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:10		Analyst: **EEW**
1-Methylnaphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:52 PM
2-Chloronaphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:52 PM
2-Methylnaphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:52 PM
Acenaphthene	**8.1**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:52 PM
Acenaphthylene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:52 PM
Anthracene	**8.7**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:52 PM
Benzo(a)anthracene	**11**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:52 PM
Benzo(a)pyrene	**6.5**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:52 PM
Benzo(b)fluoranthene	**5.4**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:52 PM
Benzo(g,h,i)perylene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:52 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-11R 6-7'
Lab ID: 20021006-57
Collection Date: 2/13/2020 01:35 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:52 PM
Chrysene	**7.7**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:52 PM
Dibenzo(a,h)anthracene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:52 PM
Fluoranthene	**24**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:52 PM
Fluorene	**7.9**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:52 PM
Indeno(1,2,3-cd)pyrene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:52 PM
Naphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 07:52 PM
Phenanthrene	**40**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:52 PM
Pyrene	**24**		**5.0**	**µg/Kg-dry**	1	2/20/2020 07:52 PM
Surr: 2-Fluorobiphenyl	*88.9*		*20-140*	*%REC*	1	2/20/2020 07:52 PM
Surr: 4-Terphenyl-d14	*92.9*		*22-172*	*%REC*	1	2/20/2020 07:52 PM
Surr: Nitrobenzene-d5	*99.6*		*28-140*	*%REC*	1	2/20/2020 07:52 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 11:29		Analyst: **SJB**
1,1,1,2-Tetrachloroethane	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
1,1,1-Trichloroethane	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
1,1,2,2-Tetrachloroethane	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
1,1,2-Trichloroethane	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
1,1,2-Trichlorotrifluoroethane	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
1,1-Dichloroethane	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
1,1-Dichloroethene	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
1,2,3-Trichloropropane	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
1,2,4-Trichlorobenzene	ND		130	µg/Kg-dry	1	2/19/2020 09:55 PM
1,2,4-Trimethylbenzene	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
1,2-Dibromo-3-chloropropane	ND		130	µg/Kg-dry	1	2/19/2020 09:55 PM
1,2-Dibromoethane	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
1,2-Dichlorobenzene	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
1,2-Dichloroethane	ND		130	µg/Kg-dry	1	2/19/2020 09:55 PM
1,2-Dichloropropane	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
1,3,5-Trimethylbenzene	ND		130	µg/Kg-dry	1	2/19/2020 09:55 PM
1,3-Dichlorobenzene	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
1,4-Dichlorobenzene	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
2-Butanone	ND		260	µg/Kg-dry	1	2/19/2020 09:55 PM
2-Hexanone	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
2-Methylnaphthalene	ND		130	µg/Kg-dry	1	2/19/2020 09:55 PM
4-Methyl-2-pentanone	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
Acetone	ND		130	µg/Kg-dry	1	2/19/2020 09:55 PM
Acrylonitrile	ND		130	µg/Kg-dry	1	2/19/2020 09:55 PM
Benzene	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
Bromochloromethane	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
Bromodichloromethane	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-11R 6-7'
Collection Date: 2/13/2020 01:35 PM

Work Order: 20021006
Lab ID: 20021006-57
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
Bromomethane	ND		130	µg/Kg-dry	1	2/19/2020 09:55 PM
Carbon disulfide	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
Carbon tetrachloride	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
Chlorobenzene	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
Chloroethane	ND		130	µg/Kg-dry	1	2/19/2020 09:55 PM
Chloroform	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
Chloromethane	ND		130	µg/Kg-dry	1	2/19/2020 09:55 PM
cis-1,2-Dichloroethene	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
cis-1,3-Dichloropropene	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
Dibromochloromethane	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
Dibromomethane	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
Dichlorodifluoromethane	ND		130	µg/Kg-dry	1	2/19/2020 09:55 PM
Diethyl ether	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
Ethylbenzene	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
Hexachloroethane	ND		130	µg/Kg-dry	1	2/19/2020 09:55 PM
Isopropylbenzene	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
m,p-Xylene	ND		77	µg/Kg-dry	1	2/19/2020 09:55 PM
Methyl iodide	ND		640	µg/Kg-dry	1	2/19/2020 09:55 PM
Methyl tert-butyl ether	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
Methylene chloride	ND		320	µg/Kg-dry	1	2/19/2020 09:55 PM
Naphthalene	ND		130	µg/Kg-dry	1	2/19/2020 09:55 PM
n-Propylbenzene	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
o-Xylene	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
Styrene	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
Tetrachloroethene	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
Toluene	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
trans-1,2-Dichloroethene	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
trans-1,3-Dichloropropene	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
trans-1,4-Dichloro-2-butene	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
Trichloroethene	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
Trichlorofluoromethane	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
Vinyl acetate	ND		320	µg/Kg-dry	1	2/19/2020 09:55 PM
Vinyl chloride	ND		39	µg/Kg-dry	1	2/19/2020 09:55 PM
Xylenes, Total	ND		120	µg/Kg-dry	1	2/19/2020 09:55 PM
Surr: 1,2-Dichloroethane-d4	*101*		*70-130*	*%REC*	1	2/19/2020 09:55 PM
Surr: 4-Bromofluorobenzene	*102*		*70-130*	*%REC*	1	2/19/2020 09:55 PM
Surr: Dibromofluoromethane	*84.3*		*70-130*	*%REC*	1	2/19/2020 09:55 PM
Surr: Toluene-d8	*101*		*70-130*	*%REC*	1	2/19/2020 09:55 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 15:33 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-11R 6-7'
Collection Date: 2/13/2020 01:35 PM

Work Order: 20021006
Lab ID: 20021006-57
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor		Date Analyzed
Biochemical Oxygen Demand	ND		24	mg/Kg-dry	1		2/20/2020 12:00 PM
MOISTURE			**SW3550C**				Analyst: **KTP**
Moisture	**17**		**0.10**	**% of sample**	1		2/18/2020 01:03 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**			Prep: E365.1 R2.0 2/18/20 14:05	Analyst: **JZB**
Phosphorus, Total	**380**		**130**	**mg/Kg-dry**	4		2/19/2020 10:38 AM
PH			**SW9045D**			Prep: EXTRACT 2/17/20 10:11	Analyst: **DNW**
pH	**8.34**		**0.100**	**s.u.**	1		2/17/2020 12:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-11R 7-8'
Collection Date: 2/13/2020 01:40 PM

Work Order: 20021006
Lab ID: 20021006-58
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/18/20 10:48		Analyst: **RM**
Aroclor 1016	ND		81	µg/Kg-dry	1	2/18/2020 09:02 PM
Aroclor 1221	ND		81	µg/Kg-dry	1	2/18/2020 09:02 PM
Aroclor 1232	ND		81	µg/Kg-dry	1	2/18/2020 09:02 PM
Aroclor 1242	ND		81	µg/Kg-dry	1	2/18/2020 09:02 PM
Aroclor 1248	ND		81	µg/Kg-dry	1	2/18/2020 09:02 PM
Aroclor 1254	ND		81	µg/Kg-dry	1	2/18/2020 09:02 PM
Aroclor 1260	ND		81	µg/Kg-dry	1	2/18/2020 09:02 PM
Aroclor 1262	ND		81	µg/Kg-dry	1	2/18/2020 09:02 PM
Aroclor 1268	ND		81	µg/Kg-dry	1	2/18/2020 09:02 PM
Surr: Decachlorobiphenyl	*61.7*		*40-140*	*%REC*	1	2/18/2020 09:02 PM
Surr: Tetrachloro-m-xylene	*67.2*		*45-124*	*%REC*	1	2/18/2020 09:02 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 11:48		Analyst: **RSH**
Mercury	ND		0.020	mg/Kg-dry	1	2/20/2020 02:53 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:32		Analyst: **DSC**
Arsenic	**6.1**		**0.41**	**mg/Kg-dry**	1	2/18/2020 10:02 PM
Barium	**75**		**0.41**	**mg/Kg-dry**	1	2/18/2020 10:02 PM
Cadmium	ND		0.17	mg/Kg-dry	1	2/18/2020 10:02 PM
Chromium	**18**		**4.1**	**mg/Kg-dry**	10	2/19/2020 05:19 PM
Copper	**14**		**0.41**	**mg/Kg-dry**	1	2/18/2020 10:02 PM
Lead	**9.1**		**0.41**	**mg/Kg-dry**	1	2/18/2020 10:02 PM
Nickel	**21**		**0.41**	**mg/Kg-dry**	1	2/18/2020 10:02 PM
Selenium	ND		0.41	mg/Kg-dry	1	2/18/2020 10:02 PM
Silver	ND		0.41	mg/Kg-dry	1	2/18/2020 10:02 PM
Thorium	**4.3**		**0.41**	**mg/Kg-dry**	1	2/18/2020 10:02 PM
Uranium	**1.6**		**0.41**	**mg/Kg-dry**	1	2/18/2020 10:02 PM
Zinc	**58**		**8.3**	**mg/Kg-dry**	10	2/19/2020 05:19 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:10		Analyst: **EEW**
1-Methylnaphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 08:07 PM
2-Chloronaphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 08:07 PM
2-Methylnaphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 08:07 PM
Acenaphthene	ND		5.0	µg/Kg-dry	1	2/20/2020 08:07 PM
Acenaphthylene	ND		5.0	µg/Kg-dry	1	2/20/2020 08:07 PM
Anthracene	**6.8**		**5.0**	**µg/Kg-dry**	1	2/20/2020 08:07 PM
Benzo(a)anthracene	**6.2**		**5.0**	**µg/Kg-dry**	1	2/20/2020 08:07 PM
Benzo(a)pyrene	ND		5.0	µg/Kg-dry	1	2/20/2020 08:07 PM
Benzo(b)fluoranthene	ND		5.0	µg/Kg-dry	1	2/20/2020 08:07 PM
Benzo(g,h,i)perylene	ND		5.0	µg/Kg-dry	1	2/20/2020 08:07 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-11R 7-8' **Lab ID:** 20021006-58
Collection Date: 2/13/2020 01:40 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.0	µg/Kg-dry	1	2/20/2020 08:07 PM
Chrysene	ND		5.0	µg/Kg-dry	1	2/20/2020 08:07 PM
Dibenzo(a,h)anthracene	ND		5.0	µg/Kg-dry	1	2/20/2020 08:07 PM
Fluoranthene	**12**		**5.0**	**µg/Kg-dry**	1	2/20/2020 08:07 PM
Fluorene	**5.2**		**5.0**	**µg/Kg-dry**	1	2/20/2020 08:07 PM
Indeno(1,2,3-cd)pyrene	ND		5.0	µg/Kg-dry	1	2/20/2020 08:07 PM
Naphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 08:07 PM
Phenanthrene	**32**		**5.0**	**µg/Kg-dry**	1	2/20/2020 08:07 PM
Pyrene	**11**		**5.0**	**µg/Kg-dry**	1	2/20/2020 08:07 PM
Surr: 2-Fluorobiphenyl	*95.9*		*20-140*	*%REC*	1	2/20/2020 08:07 PM
Surr: 4-Terphenyl-d14	*104*		*22-172*	*%REC*	1	2/20/2020 08:07 PM
Surr: Nitrobenzene-d5	*107*		*28-140*	*%REC*	1	2/20/2020 08:07 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 11:29		Analyst: **SJB**
1,1,1,2-Tetrachloroethane	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
1,1,1-Trichloroethane	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
1,1,2,2-Tetrachloroethane	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
1,1,2-Trichloroethane	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
1,1,2-Trichlorotrifluoroethane	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
1,1-Dichloroethane	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
1,1-Dichloroethene	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
1,2,3-Trichloropropane	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
1,2,4-Trichlorobenzene	ND		140	µg/Kg-dry	1	2/19/2020 10:16 PM
1,2,4-Trimethylbenzene	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
1,2-Dibromo-3-chloropropane	ND		140	µg/Kg-dry	1	2/19/2020 10:16 PM
1,2-Dibromoethane	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
1,2-Dichlorobenzene	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
1,2-Dichloroethane	ND		140	µg/Kg-dry	1	2/19/2020 10:16 PM
1,2-Dichloropropane	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
1,3,5-Trimethylbenzene	ND		140	µg/Kg-dry	1	2/19/2020 10:16 PM
1,3-Dichlorobenzene	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
1,4-Dichlorobenzene	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
2-Butanone	ND		270	µg/Kg-dry	1	2/19/2020 10:16 PM
2-Hexanone	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
2-Methylnaphthalene	ND		140	µg/Kg-dry	1	2/19/2020 10:16 PM
4-Methyl-2-pentanone	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
Acetone	ND		140	µg/Kg-dry	1	2/19/2020 10:16 PM
Acrylonitrile	ND		140	µg/Kg-dry	1	2/19/2020 10:16 PM
Benzene	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
Bromochloromethane	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
Bromodichloromethane	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-11R 7-8'
Collection Date: 2/13/2020 01:40 PM

Work Order: 20021006
Lab ID: 20021006-58
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
Bromomethane	ND		140	µg/Kg-dry	1	2/19/2020 10:16 PM
Carbon disulfide	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
Carbon tetrachloride	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
Chlorobenzene	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
Chloroethane	ND		140	µg/Kg-dry	1	2/19/2020 10:16 PM
Chloroform	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
Chloromethane	ND		140	µg/Kg-dry	1	2/19/2020 10:16 PM
cis-1,2-Dichloroethene	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
cis-1,3-Dichloropropene	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
Dibromochloromethane	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
Dibromomethane	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
Dichlorodifluoromethane	ND		140	µg/Kg-dry	1	2/19/2020 10:16 PM
Diethyl ether	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
Ethylbenzene	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
Hexachloroethane	ND		140	µg/Kg-dry	1	2/19/2020 10:16 PM
Isopropylbenzene	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
m,p-Xylene	ND		81	µg/Kg-dry	1	2/19/2020 10:16 PM
Methyl iodide	ND		680	µg/Kg-dry	1	2/19/2020 10:16 PM
Methyl tert-butyl ether	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
Methylene chloride	ND		340	µg/Kg-dry	1	2/19/2020 10:16 PM
Naphthalene	ND		140	µg/Kg-dry	1	2/19/2020 10:16 PM
n-Propylbenzene	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
o-Xylene	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
Styrene	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
Tetrachloroethene	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
Toluene	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
trans-1,2-Dichloroethene	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
trans-1,3-Dichloropropene	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
trans-1,4-Dichloro-2-butene	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
Trichloroethene	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
Trichlorofluoromethane	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
Vinyl acetate	ND		340	µg/Kg-dry	1	2/19/2020 10:16 PM
Vinyl chloride	ND		41	µg/Kg-dry	1	2/19/2020 10:16 PM
Xylenes, Total	ND		120	µg/Kg-dry	1	2/19/2020 10:16 PM
Surr: 1,2-Dichloroethane-d4	*98.6*		*70-130*	*%REC*	1	2/19/2020 10:16 PM
Surr: 4-Bromofluorobenzene	*98.2*		*70-130*	*%REC*	1	2/19/2020 10:16 PM
Surr: Dibromofluoromethane	*83.2*		*70-130*	*%REC*	1	2/19/2020 10:16 PM
Surr: Toluene-d8	*101*		*70-130*	*%REC*	1	2/19/2020 10:16 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 15:33 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-11R 7-8'
Collection Date: 2/13/2020 01:40 PM

Work Order: 20021006
Lab ID: 20021006-58
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	ND		24	mg/Kg-dry	1	2/20/2020 12:00 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**19**		**0.10**	**% of sample**	1	2/18/2020 01:03 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/18/20 14:05	Analyst: **JZB**
Phosphorus, Total	**420**		**130**	**mg/Kg-dry**	4	2/19/2020 10:40 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 10:11	Analyst: **DNW**
pH	**8.46**		**0.100**	**s.u.**	1	2/17/2020 12:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-11R 8-9'
Collection Date: 2/13/2020 01:45 PM

Work Order: 20021006
Lab ID: 20021006-59
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/18/20 10:48		Analyst: **RM**
Aroclor 1016	ND		78	µg/Kg-dry	1	2/18/2020 09:18 PM
Aroclor 1221	ND		78	µg/Kg-dry	1	2/18/2020 09:18 PM
Aroclor 1232	ND		78	µg/Kg-dry	1	2/18/2020 09:18 PM
Aroclor 1242	ND		78	µg/Kg-dry	1	2/18/2020 09:18 PM
Aroclor 1248	ND		78	µg/Kg-dry	1	2/18/2020 09:18 PM
Aroclor 1254	ND		78	µg/Kg-dry	1	2/18/2020 09:18 PM
Aroclor 1260	ND		78	µg/Kg-dry	1	2/18/2020 09:18 PM
Aroclor 1262	ND		78	µg/Kg-dry	1	2/18/2020 09:18 PM
Aroclor 1268	ND		78	µg/Kg-dry	1	2/18/2020 09:18 PM
Surr: Decachlorobiphenyl	*37.3*	S	*40-140*	*%REC*	1	2/18/2020 09:18 PM
Surr: Tetrachloro-m-xylene	*48.3*		*45-124*	*%REC*	1	2/18/2020 09:18 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 11:48		Analyst: **RSH**
Mercury	ND		0.019	mg/Kg-dry	1	2/20/2020 02:56 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:32		Analyst: **DSC**
Arsenic	**6.9**		**0.41**	**mg/Kg-dry**	1	2/18/2020 10:04 PM
Barium	**74**		**0.41**	**mg/Kg-dry**	1	2/18/2020 10:04 PM
Cadmium	ND		0.16	mg/Kg-dry	1	2/18/2020 10:04 PM
Chromium	**19**		**4.1**	**mg/Kg-dry**	10	2/19/2020 05:27 PM
Copper	**57**		**4.1**	**mg/Kg-dry**	10	2/19/2020 05:27 PM
Lead	**15**		**0.41**	**mg/Kg-dry**	1	2/18/2020 10:04 PM
Nickel	**20**		**0.41**	**mg/Kg-dry**	1	2/18/2020 10:04 PM
Selenium	ND		0.41	mg/Kg-dry	1	2/18/2020 10:04 PM
Silver	ND		0.41	mg/Kg-dry	1	2/18/2020 10:04 PM
Thorium	**4.1**		**0.41**	**mg/Kg-dry**	1	2/18/2020 10:04 PM
Uranium	**1.7**		**0.41**	**mg/Kg-dry**	1	2/18/2020 10:04 PM
Zinc	**74**		**8.2**	**mg/Kg-dry**	10	2/19/2020 05:27 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/18/20 14:37		Analyst: **EEW**
1-Methylnaphthalene	ND		5.1	µg/Kg-dry	1	2/19/2020 07:35 PM
2-Chloronaphthalene	ND		5.1	µg/Kg-dry	1	2/19/2020 07:35 PM
2-Methylnaphthalene	ND		5.1	µg/Kg-dry	1	2/19/2020 07:35 PM
Acenaphthene	ND		5.1	µg/Kg-dry	1	2/19/2020 07:35 PM
Acenaphthylene	ND		5.1	µg/Kg-dry	1	2/19/2020 07:35 PM
Anthracene	**7.4**		**5.1**	**µg/Kg-dry**	1	2/19/2020 07:35 PM
Benzo(a)anthracene	**5.8**		**5.1**	**µg/Kg-dry**	1	2/19/2020 07:35 PM
Benzo(a)pyrene	ND		5.1	µg/Kg-dry	1	2/19/2020 07:35 PM
Benzo(b)fluoranthene	ND		5.1	µg/Kg-dry	1	2/19/2020 07:35 PM
Benzo(g,h,i)perylene	ND		5.1	µg/Kg-dry	1	2/19/2020 07:35 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-11R 8-9' **Lab ID:** 20021006-59
Collection Date: 2/13/2020 01:45 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.1	µg/Kg-dry	1	2/19/2020 07:35 PM
Chrysene	ND		5.1	µg/Kg-dry	1	2/19/2020 07:35 PM
Dibenzo(a,h)anthracene	ND		5.1	µg/Kg-dry	1	2/19/2020 07:35 PM
Fluoranthene	**15**		**5.1**	**µg/Kg-dry**	1	2/19/2020 07:35 PM
Fluorene	ND		5.1	µg/Kg-dry	1	2/19/2020 07:35 PM
Indeno(1,2,3-cd)pyrene	ND		5.1	µg/Kg-dry	1	2/19/2020 07:35 PM
Naphthalene	ND		5.1	µg/Kg-dry	1	2/19/2020 07:35 PM
Phenanthrene	**23**		**5.1**	**µg/Kg-dry**	1	2/19/2020 07:35 PM
Pyrene	**14**		**5.1**	**µg/Kg-dry**	1	2/19/2020 07:35 PM
Surr: 2-Fluorobiphenyl	*86.9*		*20-140*	*%REC*	1	2/19/2020 07:35 PM
Surr: 4-Terphenyl-d14	*103*		*22-172*	*%REC*	1	2/19/2020 07:35 PM
Surr: Nitrobenzene-d5	*84.7*		*28-140*	*%REC*	1	2/19/2020 07:35 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 14:26		Analyst: **SJB**
1,1,1,2-Tetrachloroethane	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
1,1,1-Trichloroethane	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
1,1,2,2-Tetrachloroethane	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
1,1,2-Trichloroethane	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
1,1,2-Trichlorotrifluoroethane	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
1,1-Dichloroethane	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
1,1-Dichloroethene	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
1,2,3-Trichloropropane	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
1,2,4-Trichlorobenzene	ND		140	µg/Kg-dry	1	2/19/2020 10:37 PM
1,2,4-Trimethylbenzene	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
1,2-Dibromo-3-chloropropane	ND		140	µg/Kg-dry	1	2/19/2020 10:37 PM
1,2-Dibromoethane	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
1,2-Dichlorobenzene	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
1,2-Dichloroethane	ND		140	µg/Kg-dry	1	2/19/2020 10:37 PM
1,2-Dichloropropane	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
1,3,5-Trimethylbenzene	ND		140	µg/Kg-dry	1	2/19/2020 10:37 PM
1,3-Dichlorobenzene	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
1,4-Dichlorobenzene	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
2-Butanone	ND		280	µg/Kg-dry	1	2/19/2020 10:37 PM
2-Hexanone	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
2-Methylnaphthalene	ND		140	µg/Kg-dry	1	2/19/2020 10:37 PM
4-Methyl-2-pentanone	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
Acetone	ND		140	µg/Kg-dry	1	2/19/2020 10:37 PM
Acrylonitrile	ND		140	µg/Kg-dry	1	2/19/2020 10:37 PM
Benzene	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
Bromochloromethane	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
Bromodichloromethane	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-11R 8-9' **Lab ID:** 20021006-59
Collection Date: 2/13/2020 01:45 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
Bromomethane	ND		140	µg/Kg-dry	1	2/19/2020 10:37 PM
Carbon disulfide	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
Carbon tetrachloride	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
Chlorobenzene	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
Chloroethane	ND		140	µg/Kg-dry	1	2/19/2020 10:37 PM
Chloroform	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
Chloromethane	ND		140	µg/Kg-dry	1	2/19/2020 10:37 PM
cis-1,2-Dichloroethene	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
cis-1,3-Dichloropropene	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
Dibromochloromethane	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
Dibromomethane	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
Dichlorodifluoromethane	ND		140	µg/Kg-dry	1	2/19/2020 10:37 PM
Diethyl ether	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
Ethylbenzene	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
Hexachloroethane	ND		140	µg/Kg-dry	1	2/19/2020 10:37 PM
Isopropylbenzene	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
m,p-Xylene	ND		84	µg/Kg-dry	1	2/19/2020 10:37 PM
Methyl iodide	ND		700	µg/Kg-dry	1	2/19/2020 10:37 PM
Methyl tert-butyl ether	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
Methylene chloride	ND		350	µg/Kg-dry	1	2/19/2020 10:37 PM
Naphthalene	ND		140	µg/Kg-dry	1	2/19/2020 10:37 PM
n-Propylbenzene	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
o-Xylene	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
Styrene	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
Tetrachloroethene	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
Toluene	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
trans-1,2-Dichloroethene	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
trans-1,3-Dichloropropene	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
trans-1,4-Dichloro-2-butene	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
Trichloroethene	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
Trichlorofluoromethane	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
Vinyl acetate	ND		350	µg/Kg-dry	1	2/19/2020 10:37 PM
Vinyl chloride	ND		42	µg/Kg-dry	1	2/19/2020 10:37 PM
Xylenes, Total	ND		130	µg/Kg-dry	1	2/19/2020 10:37 PM
Surr: 1,2-Dichloroethane-d4	*96.7*		*70-130*	*%REC*	1	2/19/2020 10:37 PM
Surr: 4-Bromofluorobenzene	*95.6*		*70-130*	*%REC*	1	2/19/2020 10:37 PM
Surr: Dibromofluoromethane	*82.5*		*70-130*	*%REC*	1	2/19/2020 10:37 PM
Surr: Toluene-d8	*99.6*		*70-130*	*%REC*	1	2/19/2020 10:37 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 15:33 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-11R 8-9'
Collection Date: 2/13/2020 01:45 PM

Work Order: 20021006
Lab ID: 20021006-59
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor		Date Analyzed
Biochemical Oxygen Demand	ND		25	mg/Kg-dry	1		2/20/2020 12:00 PM
MOISTURE			**SW3550C**				Analyst: **KTP**
Moisture	**19**		**0.10**	**% of sample**	1		2/18/2020 01:03 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**			Prep: E365.1 R2.0 2/18/20 14:05	Analyst: **JZB**
Phosphorus, Total	**410**		**120**	**mg/Kg-dry**	4		2/19/2020 10:41 AM
PH			**SW9045D**			Prep: EXTRACT 2/17/20 10:11	Analyst: **DNW**
pH	**8.39**		**0.100**	**s.u.**	1		2/17/2020 12:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-11R 9-10'
Collection Date: 2/13/2020 01:50 PM

Work Order: 20021006
Lab ID: 20021006-60
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/18/20 10:48		Analyst: **RM**
Aroclor 1016	ND		81	µg/Kg-dry	1	2/18/2020 09:33 PM
Aroclor 1221	ND		81	µg/Kg-dry	1	2/18/2020 09:33 PM
Aroclor 1232	ND		81	µg/Kg-dry	1	2/18/2020 09:33 PM
Aroclor 1242	ND		81	µg/Kg-dry	1	2/18/2020 09:33 PM
Aroclor 1248	ND		81	µg/Kg-dry	1	2/18/2020 09:33 PM
Aroclor 1254	ND		81	µg/Kg-dry	1	2/18/2020 09:33 PM
Aroclor 1260	ND		81	µg/Kg-dry	1	2/18/2020 09:33 PM
Aroclor 1262	ND		81	µg/Kg-dry	1	2/18/2020 09:33 PM
Aroclor 1268	ND		81	µg/Kg-dry	1	2/18/2020 09:33 PM
Surr: Decachlorobiphenyl	*35.7*	S	*40-140*	*%REC*	1	2/18/2020 09:33 PM
Surr: Tetrachloro-m-xylene	*49.7*		*45-124*	*%REC*	1	2/18/2020 09:33 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 11:48		Analyst: **RSH**
Mercury	**0.021**		**0.019**	**mg/Kg-dry**	1	2/20/2020 02:58 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:32		Analyst: **DSC**
Arsenic	**7.8**		**0.48**	**mg/Kg-dry**	1	2/18/2020 10:05 PM
Barium	**76**		**0.48**	**mg/Kg-dry**	1	2/18/2020 10:05 PM
Cadmium	**0.55**		**0.19**	**mg/Kg-dry**	1	2/18/2020 10:05 PM
Chromium	**20**		**4.8**	**mg/Kg-dry**	10	2/19/2020 05:29 PM
Copper	**71**		**4.8**	**mg/Kg-dry**	10	2/19/2020 05:29 PM
Lead	**16**		**0.48**	**mg/Kg-dry**	1	2/18/2020 10:05 PM
Nickel	**23**		**0.48**	**mg/Kg-dry**	1	2/18/2020 10:05 PM
Selenium	ND		0.48	mg/Kg-dry	1	2/18/2020 10:05 PM
Silver	ND		0.48	mg/Kg-dry	1	2/18/2020 10:05 PM
Thorium	**4.3**		**0.48**	**mg/Kg-dry**	1	2/18/2020 10:05 PM
Uranium	**2.2**		**0.48**	**mg/Kg-dry**	1	2/18/2020 10:05 PM
Zinc	**110**		**9.7**	**mg/Kg-dry**	10	2/19/2020 05:29 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/18/20 14:37		Analyst: **EEW**
1-Methylnaphthalene	ND		5.0	µg/Kg-dry	1	2/19/2020 07:51 PM
2-Chloronaphthalene	ND		5.0	µg/Kg-dry	1	2/19/2020 07:51 PM
2-Methylnaphthalene	ND		5.0	µg/Kg-dry	1	2/19/2020 07:51 PM
Acenaphthene	ND		5.0	µg/Kg-dry	1	2/19/2020 07:51 PM
Acenaphthylene	ND		5.0	µg/Kg-dry	1	2/19/2020 07:51 PM
Anthracene	**6.5**		**5.0**	**µg/Kg-dry**	1	2/19/2020 07:51 PM
Benzo(a)anthracene	ND		5.0	µg/Kg-dry	1	2/19/2020 07:51 PM
Benzo(a)pyrene	ND		5.0	µg/Kg-dry	1	2/19/2020 07:51 PM
Benzo(b)fluoranthene	ND		5.0	µg/Kg-dry	1	2/19/2020 07:51 PM
Benzo(g,h,i)perylene	ND		5.0	µg/Kg-dry	1	2/19/2020 07:51 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-11R 9-10'
Lab ID: 20021006-60
Collection Date: 2/13/2020 01:50 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.0	µg/Kg-dry	1	2/19/2020 07:51 PM
Chrysene	ND		5.0	µg/Kg-dry	1	2/19/2020 07:51 PM
Dibenzo(a,h)anthracene	ND		5.0	µg/Kg-dry	1	2/19/2020 07:51 PM
Fluoranthene	**11**		**5.0**	**µg/Kg-dry**	1	2/19/2020 07:51 PM
Fluorene	ND		5.0	µg/Kg-dry	1	2/19/2020 07:51 PM
Indeno(1,2,3-cd)pyrene	ND		5.0	µg/Kg-dry	1	2/19/2020 07:51 PM
Naphthalene	**50**		**5.0**	**µg/Kg-dry**	1	2/19/2020 07:51 PM
Phenanthrene	**21**		**5.0**	**µg/Kg-dry**	1	2/19/2020 07:51 PM
Pyrene	**10**		**5.0**	**µg/Kg-dry**	1	2/19/2020 07:51 PM
Surr: 2-Fluorobiphenyl	*87.6*		*20-140*	*%REC*	1	2/19/2020 07:51 PM
Surr: 4-Terphenyl-d14	*103*		*22-172*	*%REC*	1	2/19/2020 07:51 PM
Surr: Nitrobenzene-d5	*86.9*		*28-140*	*%REC*	1	2/19/2020 07:51 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 14:26		Analyst: **SJB**
1,1,1,2-Tetrachloroethane	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
1,1,1-Trichloroethane	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
1,1,2,2-Tetrachloroethane	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
1,1,2-Trichloroethane	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
1,1,2-Trichlorotrifluoroethane	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
1,1-Dichloroethane	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
1,1-Dichloroethene	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
1,2,3-Trichloropropane	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
1,2,4-Trichlorobenzene	ND		130	µg/Kg-dry	1	2/19/2020 10:58 PM
1,2,4-Trimethylbenzene	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
1,2-Dibromo-3-chloropropane	ND		130	µg/Kg-dry	1	2/19/2020 10:58 PM
1,2-Dibromoethane	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
1,2-Dichlorobenzene	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
1,2-Dichloroethane	ND		130	µg/Kg-dry	1	2/19/2020 10:58 PM
1,2-Dichloropropane	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
1,3,5-Trimethylbenzene	ND		130	µg/Kg-dry	1	2/19/2020 10:58 PM
1,3-Dichlorobenzene	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
1,4-Dichlorobenzene	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
2-Butanone	ND		260	µg/Kg-dry	1	2/19/2020 10:58 PM
2-Hexanone	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
2-Methylnaphthalene	ND		130	µg/Kg-dry	1	2/19/2020 10:58 PM
4-Methyl-2-pentanone	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
Acetone	ND		130	µg/Kg-dry	1	2/19/2020 10:58 PM
Acrylonitrile	ND		130	µg/Kg-dry	1	2/19/2020 10:58 PM
Benzene	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
Bromochloromethane	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
Bromodichloromethane	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-11R 9-10' **Lab ID:** 20021006-60
Collection Date: 2/13/2020 01:50 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
Bromomethane	ND		130	µg/Kg-dry	1	2/19/2020 10:58 PM
Carbon disulfide	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
Carbon tetrachloride	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
Chlorobenzene	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
Chloroethane	ND		130	µg/Kg-dry	1	2/19/2020 10:58 PM
Chloroform	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
Chloromethane	ND		130	µg/Kg-dry	1	2/19/2020 10:58 PM
cis-1,2-Dichloroethene	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
cis-1,3-Dichloropropene	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
Dibromochloromethane	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
Dibromomethane	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
Dichlorodifluoromethane	ND		130	µg/Kg-dry	1	2/19/2020 10:58 PM
Diethyl ether	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
Ethylbenzene	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
Hexachloroethane	ND		130	µg/Kg-dry	1	2/19/2020 10:58 PM
Isopropylbenzene	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
m,p-Xylene	ND		79	µg/Kg-dry	1	2/19/2020 10:58 PM
Methyl iodide	ND		660	µg/Kg-dry	1	2/19/2020 10:58 PM
Methyl tert-butyl ether	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
Methylene chloride	ND		330	µg/Kg-dry	1	2/19/2020 10:58 PM
Naphthalene	ND		130	µg/Kg-dry	1	2/19/2020 10:58 PM
n-Propylbenzene	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
o-Xylene	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
Styrene	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
Tetrachloroethene	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
Toluene	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
trans-1,2-Dichloroethene	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
trans-1,3-Dichloropropene	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
trans-1,4-Dichloro-2-butene	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
Trichloroethene	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
Trichlorofluoromethane	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
Vinyl acetate	ND		330	µg/Kg-dry	1	2/19/2020 10:58 PM
Vinyl chloride	ND		39	µg/Kg-dry	1	2/19/2020 10:58 PM
Xylenes, Total	ND		120	µg/Kg-dry	1	2/19/2020 10:58 PM
Surr: 1,2-Dichloroethane-d4	*101*		*70-130*	*%REC*	1	2/19/2020 10:58 PM
Surr: 4-Bromofluorobenzene	*95.8*		*70-130*	*%REC*	1	2/19/2020 10:58 PM
Surr: Dibromofluoromethane	*83.9*		*70-130*	*%REC*	1	2/19/2020 10:58 PM
Surr: Toluene-d8	*100*		*70-130*	*%REC*	1	2/19/2020 10:58 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 15:33 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-11R 9-10'
Lab ID: 20021006-60
Collection Date: 2/13/2020 01:50 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	ND		25	mg/Kg-dry	1	2/20/2020 12:00 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**19**		**0.10**	**% of sample**	1	2/18/2020 01:03 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/18/20 14:05	Analyst: **JZB**
Phosphorus, Total	**370**		**120**	**mg/Kg-dry**	4	2/19/2020 10:42 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 10:11	Analyst: **DNW**
pH	**8.41**		**0.100**	**s.u.**	1	2/17/2020 12:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-13R 0-1'
Collection Date: 2/13/2020 02:00 PM

Work Order: 20021006
Lab ID: 20021006-61
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/18/20 10:48		Analyst: **RM**
Aroclor 1016	ND		390	µg/Kg-dry	1	2/18/2020 09:48 PM
Aroclor 1221	ND		390	µg/Kg-dry	1	2/18/2020 09:48 PM
Aroclor 1232	ND		390	µg/Kg-dry	1	2/18/2020 09:48 PM
Aroclor 1242	ND		390	µg/Kg-dry	1	2/18/2020 09:48 PM
Aroclor 1248	ND		390	µg/Kg-dry	1	2/18/2020 09:48 PM
Aroclor 1254	ND		390	µg/Kg-dry	1	2/18/2020 09:48 PM
Aroclor 1260	ND		390	µg/Kg-dry	1	2/18/2020 09:48 PM
Aroclor 1262	ND		390	µg/Kg-dry	1	2/18/2020 09:48 PM
Aroclor 1268	ND		390	µg/Kg-dry	1	2/18/2020 09:48 PM
Surr: Decachlorobiphenyl	*28.2*	S	*40-140*	*%REC*	1	2/18/2020 09:48 PM
Surr: Tetrachloro-m-xylene	*49.9*		*45-124*	*%REC*	1	2/18/2020 09:48 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 11:48		Analyst: **RSH**
Mercury	**0.44**		**0.046**	**mg/Kg-dry**	2	2/20/2020 04:37 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:32		Analyst: **DSC**
Arsenic	**4.9**		**0.55**	**mg/Kg-dry**	1	2/18/2020 10:39 PM
Barium	**96**		**0.55**	**mg/Kg-dry**	1	2/18/2020 10:39 PM
Cadmium	**0.65**		**0.22**	**mg/Kg-dry**	1	2/18/2020 10:39 PM
Chromium	**26**		**0.55**	**mg/Kg-dry**	1	2/18/2020 10:39 PM
Copper	**280**		**55**	**mg/Kg-dry**	100	2/19/2020 05:30 PM
Lead	**110**		**0.55**	**mg/Kg-dry**	1	2/18/2020 10:39 PM
Nickel	**25**		**0.55**	**mg/Kg-dry**	1	2/18/2020 10:39 PM
Selenium	ND		0.55	mg/Kg-dry	1	2/19/2020 05:50 PM
Silver	ND		0.55	mg/Kg-dry	1	2/18/2020 10:39 PM
Thorium	**4.5**		**0.55**	**mg/Kg-dry**	1	2/18/2020 10:39 PM
Uranium	**1.1**		**0.55**	**mg/Kg-dry**	1	2/18/2020 10:39 PM
Zinc	**390**		**110**	**mg/Kg-dry**	100	2/19/2020 05:30 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/18/20 14:37		Analyst: **EEW**
1-Methylnaphthalene	**800**		**19**	**µg/Kg-dry**	1	2/19/2020 08:06 PM
2-Chloronaphthalene	ND		19	µg/Kg-dry	1	2/19/2020 08:06 PM
2-Methylnaphthalene	**20**		**19**	**µg/Kg-dry**	1	2/19/2020 08:06 PM
Acenaphthene	**1,300**		**19**	**µg/Kg-dry**	1	2/19/2020 08:06 PM
Acenaphthylene	**55**		**19**	**µg/Kg-dry**	1	2/19/2020 08:06 PM
Anthracene	**960**		**19**	**µg/Kg-dry**	1	2/19/2020 08:06 PM
Benzo(a)anthracene	**500**		**19**	**µg/Kg-dry**	1	2/19/2020 08:06 PM
Benzo(a)pyrene	**260**		**19**	**µg/Kg-dry**	1	2/19/2020 08:06 PM
Benzo(b)fluoranthene	**260**		**19**	**µg/Kg-dry**	1	2/19/2020 08:06 PM
Benzo(g,h,i)perylene	**85**		**19**	**µg/Kg-dry**	1	2/19/2020 08:06 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-13R 0-1' **Lab ID:** 20021006-61
Collection Date: 2/13/2020 02:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**100**		**19**	**µg/Kg-dry**	1	2/19/2020 08:06 PM
Chrysene	**480**		**19**	**µg/Kg-dry**	1	2/19/2020 08:06 PM
Dibenzo(a,h)anthracene	**20**		**19**	**µg/Kg-dry**	1	2/19/2020 08:06 PM
Fluoranthene	**1,500**		**19**	**µg/Kg-dry**	1	2/19/2020 08:06 PM
Fluorene	**880**		**19**	**µg/Kg-dry**	1	2/19/2020 08:06 PM
Indeno(1,2,3-cd)pyrene	**100**		**19**	**µg/Kg-dry**	1	2/19/2020 08:06 PM
Naphthalene	ND		19	µg/Kg-dry	1	2/19/2020 08:06 PM
Phenanthrene	**2,900**		**19**	**µg/Kg-dry**	1	2/19/2020 08:06 PM
Pyrene	**1,700**		**19**	**µg/Kg-dry**	1	2/19/2020 08:06 PM
Surr: 2-Fluorobiphenyl	*96.8*		*20-140*	*%REC*	1	2/19/2020 08:06 PM
Surr: 4-Terphenyl-d14	*109*		*22-172*	*%REC*	1	2/19/2020 08:06 PM
Surr: Nitrobenzene-d5	*93.6*		*28-140*	*%REC*	1	2/19/2020 08:06 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 14:26		Analyst: **SJB**
1,1,1,2-Tetrachloroethane	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
1,1,1-Trichloroethane	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
1,1,2,2-Tetrachloroethane	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
1,1,2-Trichloroethane	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
1,1,2-Trichlorotrifluoroethane	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
1,1-Dichloroethane	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
1,1-Dichloroethene	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
1,2,3-Trichloropropane	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
1,2,4-Trichlorobenzene	ND		180	µg/Kg-dry	1	2/19/2020 11:19 PM
1,2,4-Trimethylbenzene	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
1,2-Dibromo-3-chloropropane	ND		180	µg/Kg-dry	1	2/19/2020 11:19 PM
1,2-Dibromoethane	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
1,2-Dichlorobenzene	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
1,2-Dichloroethane	ND		180	µg/Kg-dry	1	2/19/2020 11:19 PM
1,2-Dichloropropane	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
1,3,5-Trimethylbenzene	ND		180	µg/Kg-dry	1	2/19/2020 11:19 PM
1,3-Dichlorobenzene	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
1,4-Dichlorobenzene	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
2-Butanone	ND		360	µg/Kg-dry	1	2/19/2020 11:19 PM
2-Hexanone	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
2-Methylnaphthalene	ND		180	µg/Kg-dry	1	2/19/2020 11:19 PM
4-Methyl-2-pentanone	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
Acetone	ND		180	µg/Kg-dry	1	2/19/2020 11:19 PM
Acrylonitrile	ND		180	µg/Kg-dry	1	2/19/2020 11:19 PM
Benzene	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
Bromochloromethane	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
Bromodichloromethane	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-13R 0-1' **Lab ID:** 20021006-61
Collection Date: 2/13/2020 02:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
Bromomethane	ND		180	µg/Kg-dry	1	2/19/2020 11:19 PM
Carbon disulfide	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
Carbon tetrachloride	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
Chlorobenzene	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
Chloroethane	ND		180	µg/Kg-dry	1	2/19/2020 11:19 PM
Chloroform	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
Chloromethane	ND		180	µg/Kg-dry	1	2/19/2020 11:19 PM
cis-1,2-Dichloroethene	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
cis-1,3-Dichloropropene	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
Dibromochloromethane	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
Dibromomethane	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
Dichlorodifluoromethane	ND		180	µg/Kg-dry	1	2/19/2020 11:19 PM
Diethyl ether	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
Ethylbenzene	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
Hexachloroethane	ND		180	µg/Kg-dry	1	2/19/2020 11:19 PM
Isopropylbenzene	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
m,p-Xylene	ND		110	µg/Kg-dry	1	2/19/2020 11:19 PM
Methyl iodide	ND		890	µg/Kg-dry	1	2/19/2020 11:19 PM
Methyl tert-butyl ether	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
Methylene chloride	ND		450	µg/Kg-dry	1	2/19/2020 11:19 PM
Naphthalene	**200**		**180**	**µg/Kg-dry**	1	2/19/2020 11:19 PM
n-Propylbenzene	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
o-Xylene	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
Styrene	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
Tetrachloroethene	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
Toluene	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
trans-1,2-Dichloroethene	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
trans-1,3-Dichloropropene	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
trans-1,4-Dichloro-2-butene	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
Trichloroethene	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
Trichlorofluoromethane	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
Vinyl acetate	ND		450	µg/Kg-dry	1	2/19/2020 11:19 PM
Vinyl chloride	ND		54	µg/Kg-dry	1	2/19/2020 11:19 PM
Xylenes, Total	ND		160	µg/Kg-dry	1	2/19/2020 11:19 PM
Surr: 1,2-Dichloroethane-d4	*102*		*70-130*	*%REC*	1	2/19/2020 11:19 PM
Surr: 4-Bromofluorobenzene	*97.8*		*70-130*	*%REC*	1	2/19/2020 11:19 PM
Surr: Dibromofluoromethane	*86.6*		*70-130*	*%REC*	1	2/19/2020 11:19 PM
Surr: Toluene-d8	*99.3*		*70-130*	*%REC*	1	2/19/2020 11:19 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 15:33 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-13R 0-1'
Collection Date: 2/13/2020 02:00 PM

Work Order: 20021006
Lab ID: 20021006-61
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor		Date Analyzed
Biochemical Oxygen Demand	ND		28	mg/Kg-dry	1		2/20/2020 12:00 PM
MOISTURE			**SW3550C**				Analyst: **KTP**
Moisture	**29**		**0.10**	**% of sample**	1		2/18/2020 01:03 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**			Prep: E365.1 R2.0 2/18/20 14:05	Analyst: **JZB**
Phosphorus, Total	**490**		**140**	**mg/Kg-dry**	4		2/19/2020 10:43 AM
PH			**SW9045D**			Prep: EXTRACT 2/17/20 10:11	Analyst: **DNW**
pH	**8.13**		**0.100**	**s.u.**	1		2/17/2020 12:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-13R 1-2'
Collection Date: 2/13/2020 02:05 PM

Work Order: 20021006
Lab ID: 20021006-62
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/18/20 10:48		Analyst: **RM**
Aroclor 1016	ND		87	µg/Kg-dry	1	2/18/2020 10:04 PM
Aroclor 1221	ND		87	µg/Kg-dry	1	2/18/2020 10:04 PM
Aroclor 1232	ND		87	µg/Kg-dry	1	2/18/2020 10:04 PM
Aroclor 1242	ND		87	µg/Kg-dry	1	2/18/2020 10:04 PM
Aroclor 1248	ND		87	µg/Kg-dry	1	2/18/2020 10:04 PM
Aroclor 1254	ND		87	µg/Kg-dry	1	2/18/2020 10:04 PM
Aroclor 1260	ND		87	µg/Kg-dry	1	2/18/2020 10:04 PM
Aroclor 1262	ND		87	µg/Kg-dry	1	2/18/2020 10:04 PM
Aroclor 1268	ND		87	µg/Kg-dry	1	2/18/2020 10:04 PM
Surr: Decachlorobiphenyl	*77.5*		*40-140*	*%REC*	1	2/18/2020 10:04 PM
Surr: Tetrachloro-m-xylene	*81.2*		*45-124*	*%REC*	1	2/18/2020 10:04 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 11:48		Analyst: **RSH**
Mercury	ND		0.020	mg/Kg-dry	1	2/20/2020 03:13 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:32		Analyst: **DSC**
Arsenic	**5.0**		**0.45**	**mg/Kg-dry**	1	2/18/2020 10:40 PM
Barium	**90**		**0.45**	**mg/Kg-dry**	1	2/18/2020 10:40 PM
Cadmium	ND		0.18	mg/Kg-dry	1	2/18/2020 10:40 PM
Chromium	**18**		**0.45**	**mg/Kg-dry**	1	2/18/2020 10:40 PM
Copper	**26**		**4.5**	**mg/Kg-dry**	10	2/19/2020 05:32 PM
Lead	**11**		**0.45**	**mg/Kg-dry**	1	2/18/2020 10:40 PM
Nickel	**25**		**0.45**	**mg/Kg-dry**	1	2/18/2020 10:40 PM
Selenium	ND		0.45	mg/Kg-dry	1	2/19/2020 05:52 PM
Silver	ND		0.45	mg/Kg-dry	1	2/18/2020 10:40 PM
Thorium	**4.9**		**0.45**	**mg/Kg-dry**	1	2/18/2020 10:40 PM
Uranium	**1.4**		**0.45**	**mg/Kg-dry**	1	2/18/2020 10:40 PM
Zinc	**63**		**9.0**	**mg/Kg-dry**	10	2/19/2020 05:32 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/18/20 14:37		Analyst: **EEW**
1-Methylnaphthalene	ND		16	µg/Kg-dry	1	2/19/2020 08:22 PM
2-Chloronaphthalene	ND		16	µg/Kg-dry	1	2/19/2020 08:22 PM
2-Methylnaphthalene	ND		16	µg/Kg-dry	1	2/19/2020 08:22 PM
Acenaphthene	**30**		**16**	**µg/Kg-dry**	1	2/19/2020 08:22 PM
Acenaphthylene	ND		16	µg/Kg-dry	1	2/19/2020 08:22 PM
Anthracene	**53**		**16**	**µg/Kg-dry**	1	2/19/2020 08:22 PM
Benzo(a)anthracene	**26**		**16**	**µg/Kg-dry**	1	2/19/2020 08:22 PM
Benzo(a)pyrene	ND		16	µg/Kg-dry	1	2/19/2020 08:22 PM
Benzo(b)fluoranthene	ND		16	µg/Kg-dry	1	2/19/2020 08:22 PM
Benzo(g,h,i)perylene	ND		16	µg/Kg-dry	1	2/19/2020 08:22 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-13R 1-2' **Lab ID:** 20021006-62
Collection Date: 2/13/2020 02:05 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		16	µg/Kg-dry	1	2/19/2020 08:22 PM
Chrysene	**26**		**16**	**µg/Kg-dry**	1	2/19/2020 08:22 PM
Dibenzo(a,h)anthracene	ND		16	µg/Kg-dry	1	2/19/2020 08:22 PM
Fluoranthene	**63**		**16**	**µg/Kg-dry**	1	2/19/2020 08:22 PM
Fluorene	**26**		**16**	**µg/Kg-dry**	1	2/19/2020 08:22 PM
Indeno(1,2,3-cd)pyrene	ND		16	µg/Kg-dry	1	2/19/2020 08:22 PM
Naphthalene	ND		16	µg/Kg-dry	1	2/19/2020 08:22 PM
Phenanthrene	**110**		**16**	**µg/Kg-dry**	1	2/19/2020 08:22 PM
Pyrene	**64**		**16**	**µg/Kg-dry**	1	2/19/2020 08:22 PM
Surr: 2-Fluorobiphenyl	*97.0*		*20-140*	*%REC*	1	2/19/2020 08:22 PM
Surr: 4-Terphenyl-d14	*114*		*22-172*	*%REC*	1	2/19/2020 08:22 PM
Surr: Nitrobenzene-d5	*94.0*		*28-140*	*%REC*	1	2/19/2020 08:22 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 14:26		Analyst: **SJB**
1,1,1,2-Tetrachloroethane	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
1,1,1-Trichloroethane	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
1,1,2,2-Tetrachloroethane	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
1,1,2-Trichloroethane	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
1,1,2-Trichlorotrifluoroethane	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
1,1-Dichloroethane	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
1,1-Dichloroethene	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
1,2,3-Trichloropropane	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
1,2,4-Trichlorobenzene	ND		160	µg/Kg-dry	1	2/19/2020 11:40 PM
1,2,4-Trimethylbenzene	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
1,2-Dibromo-3-chloropropane	ND		160	µg/Kg-dry	1	2/19/2020 11:40 PM
1,2-Dibromoethane	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
1,2-Dichlorobenzene	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
1,2-Dichloroethane	ND		160	µg/Kg-dry	1	2/19/2020 11:40 PM
1,2-Dichloropropane	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
1,3,5-Trimethylbenzene	ND		160	µg/Kg-dry	1	2/19/2020 11:40 PM
1,3-Dichlorobenzene	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
1,4-Dichlorobenzene	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
2-Butanone	ND		320	µg/Kg-dry	1	2/19/2020 11:40 PM
2-Hexanone	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
2-Methylnaphthalene	ND		160	µg/Kg-dry	1	2/19/2020 11:40 PM
4-Methyl-2-pentanone	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
Acetone	ND		160	µg/Kg-dry	1	2/19/2020 11:40 PM
Acrylonitrile	ND		160	µg/Kg-dry	1	2/19/2020 11:40 PM
Benzene	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
Bromochloromethane	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
Bromodichloromethane	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-13R 1-2'
Collection Date: 2/13/2020 02:05 PM

Work Order: 20021006
Lab ID: 20021006-62
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
Bromomethane	ND		160	µg/Kg-dry	1	2/19/2020 11:40 PM
Carbon disulfide	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
Carbon tetrachloride	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
Chlorobenzene	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
Chloroethane	ND		160	µg/Kg-dry	1	2/19/2020 11:40 PM
Chloroform	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
Chloromethane	ND		160	µg/Kg-dry	1	2/19/2020 11:40 PM
cis-1,2-Dichloroethene	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
cis-1,3-Dichloropropene	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
Dibromochloromethane	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
Dibromomethane	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
Dichlorodifluoromethane	ND		160	µg/Kg-dry	1	2/19/2020 11:40 PM
Diethyl ether	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
Ethylbenzene	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
Hexachloroethane	ND		160	µg/Kg-dry	1	2/19/2020 11:40 PM
Isopropylbenzene	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
m,p-Xylene	ND		95	µg/Kg-dry	1	2/19/2020 11:40 PM
Methyl iodide	ND		790	µg/Kg-dry	1	2/19/2020 11:40 PM
Methyl tert-butyl ether	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
Methylene chloride	ND		400	µg/Kg-dry	1	2/19/2020 11:40 PM
Naphthalene	ND		160	µg/Kg-dry	1	2/19/2020 11:40 PM
n-Propylbenzene	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
o-Xylene	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
Styrene	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
Tetrachloroethene	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
Toluene	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
trans-1,2-Dichloroethene	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
trans-1,3-Dichloropropene	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
trans-1,4-Dichloro-2-butene	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
Trichloroethene	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
Trichlorofluoromethane	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
Vinyl acetate	ND		400	µg/Kg-dry	1	2/19/2020 11:40 PM
Vinyl chloride	ND		48	µg/Kg-dry	1	2/19/2020 11:40 PM
Xylenes, Total	ND		140	µg/Kg-dry	1	2/19/2020 11:40 PM
Surr: 1,2-Dichloroethane-d4	*102*		*70-130*	*%REC*	1	2/19/2020 11:40 PM
Surr: 4-Bromofluorobenzene	*97.0*		*70-130*	*%REC*	1	2/19/2020 11:40 PM
Surr: Dibromofluoromethane	*81.2*		*70-130*	*%REC*	1	2/19/2020 11:40 PM
Surr: Toluene-d8	*102*		*70-130*	*%REC*	1	2/19/2020 11:40 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 15:33 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-13R 1-2'
Collection Date: 2/13/2020 02:05 PM

Work Order: 20021006
Lab ID: 20021006-62
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	ND		26	mg/Kg-dry	1	2/20/2020 12:00 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**25**		**0.10**	**% of sample**	1	2/18/2020 01:48 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/18/20 14:05	Analyst: **JZB**
Phosphorus, Total	**420**		**120**	**mg/Kg-dry**	4	2/19/2020 10:44 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 10:11	Analyst: **DNW**
pH	**8.40**		**0.100**	**s.u.**	1	2/17/2020 12:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-13R 2-3'
Collection Date: 2/13/2020 02:10 PM

Work Order: 20021006
Lab ID: 20021006-63
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/18/20 10:48		Analyst: **RM**
Aroclor 1016	ND		77	µg/Kg-dry	1	2/18/2020 04:41 PM
Aroclor 1221	ND		77	µg/Kg-dry	1	2/18/2020 04:41 PM
Aroclor 1232	ND		77	µg/Kg-dry	1	2/18/2020 04:41 PM
Aroclor 1242	ND		77	µg/Kg-dry	1	2/18/2020 04:41 PM
Aroclor 1248	ND		77	µg/Kg-dry	1	2/18/2020 04:41 PM
Aroclor 1254	ND		77	µg/Kg-dry	1	2/18/2020 04:41 PM
Aroclor 1260	ND		77	µg/Kg-dry	1	2/18/2020 04:41 PM
Aroclor 1262	ND		77	µg/Kg-dry	1	2/18/2020 04:41 PM
Aroclor 1268	ND		77	µg/Kg-dry	1	2/18/2020 04:41 PM
Surr: Decachlorobiphenyl	*45.4*		*40-140*	*%REC*	1	2/18/2020 04:41 PM
Surr: Tetrachloro-m-xylene	*53.2*		*45-124*	*%REC*	1	2/18/2020 04:41 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 11:48		Analyst: **RSH**
Mercury	ND		0.021	mg/Kg-dry	1	2/20/2020 03:15 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:32		Analyst: **DSC**
Arsenic	**5.4**		**0.45**	**mg/Kg-dry**	1	2/18/2020 10:42 PM
Barium	**65**		**0.45**	**mg/Kg-dry**	1	2/18/2020 10:42 PM
Cadmium	ND		0.18	mg/Kg-dry	1	2/18/2020 10:42 PM
Chromium	**14**		**0.45**	**mg/Kg-dry**	1	2/18/2020 10:42 PM
Copper	**23**		**4.5**	**mg/Kg-dry**	10	2/19/2020 05:34 PM
Lead	**15**		**0.45**	**mg/Kg-dry**	1	2/18/2020 10:42 PM
Nickel	**21**		**0.45**	**mg/Kg-dry**	1	2/18/2020 10:42 PM
Selenium	ND		0.45	mg/Kg-dry	1	2/19/2020 05:53 PM
Silver	ND		0.45	mg/Kg-dry	1	2/18/2020 10:42 PM
Thorium	**3.8**		**0.45**	**mg/Kg-dry**	1	2/18/2020 10:42 PM
Uranium	**1.6**		**0.45**	**mg/Kg-dry**	1	2/18/2020 10:42 PM
Zinc	**50**		**9.0**	**mg/Kg-dry**	10	2/19/2020 05:34 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/18/20 14:37		Analyst: **EEW**
1-Methylnaphthalene	**460**		**4.9**	**µg/Kg-dry**	1	2/19/2020 08:37 PM
2-Chloronaphthalene	ND		4.9	µg/Kg-dry	1	2/19/2020 08:37 PM
2-Methylnaphthalene	**1,200**		**4.9**	**µg/Kg-dry**	1	2/19/2020 08:37 PM
Acenaphthene	**570**		**4.9**	**µg/Kg-dry**	1	2/19/2020 08:37 PM
Acenaphthylene	**31**		**4.9**	**µg/Kg-dry**	1	2/19/2020 08:37 PM
Anthracene	**290**		**4.9**	**µg/Kg-dry**	1	2/19/2020 08:37 PM
Benzo(a)anthracene	**71**		**4.9**	**µg/Kg-dry**	1	2/19/2020 08:37 PM
Benzo(a)pyrene	**26**		**4.9**	**µg/Kg-dry**	1	2/19/2020 08:37 PM
Benzo(b)fluoranthene	**35**		**4.9**	**µg/Kg-dry**	1	2/19/2020 08:37 PM
Benzo(g,h,i)perylene	**8.3**		**4.9**	**µg/Kg-dry**	1	2/19/2020 08:37 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-13R 2-3' **Lab ID:** 20021006-63
Collection Date: 2/13/2020 02:10 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**18**		**4.9**	**µg/Kg-dry**	1	2/19/2020 08:37 PM
Chrysene	**65**		**4.9**	**µg/Kg-dry**	1	2/19/2020 08:37 PM
Dibenzo(a,h)anthracene	ND		4.9	µg/Kg-dry	1	2/19/2020 08:37 PM
Fluoranthene	**250**		**4.9**	**µg/Kg-dry**	1	2/19/2020 08:37 PM
Fluorene	**680**		**4.9**	**µg/Kg-dry**	1	2/19/2020 08:37 PM
Indeno(1,2,3-cd)pyrene	**9.7**		**4.9**	**µg/Kg-dry**	1	2/19/2020 08:37 PM
Naphthalene	**1,200**		**4.9**	**µg/Kg-dry**	1	2/19/2020 08:37 PM
Phenanthrene	**1,100**		**4.9**	**µg/Kg-dry**	1	2/19/2020 08:37 PM
Pyrene	**170**		**4.9**	**µg/Kg-dry**	1	2/19/2020 08:37 PM
Surr: 2-Fluorobiphenyl	*82.6*		*20-140*	*%REC*	1	2/19/2020 08:37 PM
Surr: 4-Terphenyl-d14	*94.9*		*22-172*	*%REC*	1	2/19/2020 08:37 PM
Surr: Nitrobenzene-d5	*78.3*		*28-140*	*%REC*	1	2/19/2020 08:37 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 14:26		Analyst: **SJB**
1,1,1,2-Tetrachloroethane	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
1,1,1-Trichloroethane	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
1,1,2,2-Tetrachloroethane	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
1,1,2-Trichloroethane	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
1,1,2-Trichlorotrifluoroethane	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
1,1-Dichloroethane	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
1,1-Dichloroethene	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
1,2,3-Trichloropropane	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
1,2,4-Trichlorobenzene	ND		130	µg/Kg-dry	1	2/20/2020 12:01 PM
1,2,4-Trimethylbenzene	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
1,2-Dibromo-3-chloropropane	ND		130	µg/Kg-dry	1	2/20/2020 12:01 PM
1,2-Dibromoethane	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
1,2-Dichlorobenzene	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
1,2-Dichloroethane	ND		130	µg/Kg-dry	1	2/20/2020 12:01 PM
1,2-Dichloropropane	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
1,3,5-Trimethylbenzene	ND		130	µg/Kg-dry	1	2/20/2020 12:01 PM
1,3-Dichlorobenzene	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
1,4-Dichlorobenzene	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
2-Butanone	ND		250	µg/Kg-dry	1	2/20/2020 12:01 PM
2-Hexanone	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
2-Methylnaphthalene	ND		130	µg/Kg-dry	1	2/20/2020 12:01 PM
4-Methyl-2-pentanone	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
Acetone	ND		130	µg/Kg-dry	1	2/20/2020 12:01 PM
Acrylonitrile	ND		130	µg/Kg-dry	1	2/20/2020 12:01 PM
Benzene	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
Bromochloromethane	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
Bromodichloromethane	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-13R 2-3'
Collection Date: 2/13/2020 02:10 PM

Work Order: 20021006
Lab ID: 20021006-63
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
Bromomethane	ND		130	µg/Kg-dry	1	2/20/2020 12:01 PM
Carbon disulfide	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
Carbon tetrachloride	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
Chlorobenzene	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
Chloroethane	ND		130	µg/Kg-dry	1	2/20/2020 12:01 PM
Chloroform	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
Chloromethane	ND		130	µg/Kg-dry	1	2/20/2020 12:01 PM
cis-1,2-Dichloroethene	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
cis-1,3-Dichloropropene	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
Dibromochloromethane	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
Dibromomethane	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
Dichlorodifluoromethane	ND		130	µg/Kg-dry	1	2/20/2020 12:01 PM
Diethyl ether	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
Ethylbenzene	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
Hexachloroethane	ND		130	µg/Kg-dry	1	2/20/2020 12:01 PM
Isopropylbenzene	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
m,p-Xylene	ND		76	µg/Kg-dry	1	2/20/2020 12:01 PM
Methyl iodide	ND		630	µg/Kg-dry	1	2/20/2020 12:01 PM
Methyl tert-butyl ether	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
Methylene chloride	ND		320	µg/Kg-dry	1	2/20/2020 12:01 PM
Naphthalene	ND		130	µg/Kg-dry	1	2/20/2020 12:01 PM
n-Propylbenzene	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
o-Xylene	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
Styrene	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
Tetrachloroethene	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
Toluene	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
trans-1,2-Dichloroethene	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
trans-1,3-Dichloropropene	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
trans-1,4-Dichloro-2-butene	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
Trichloroethene	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
Trichlorofluoromethane	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
Vinyl acetate	ND		320	µg/Kg-dry	1	2/20/2020 12:01 PM
Vinyl chloride	ND		38	µg/Kg-dry	1	2/20/2020 12:01 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	2/20/2020 12:01 PM
Surr: 1,2-Dichloroethane-d4	*99.6*		*70-130*	*%REC*	1	2/20/2020 12:01 PM
Surr: 4-Bromofluorobenzene	*97.5*		*70-130*	*%REC*	1	2/20/2020 12:01 PM
Surr: Dibromofluoromethane	*83.4*		*70-130*	*%REC*	1	2/20/2020 12:01 PM
Surr: Toluene-d8	*101*		*70-130*	*%REC*	1	2/20/2020 12:01 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 15:33 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-13R 2-3'
Collection Date: 2/13/2020 02:10 PM

Work Order: 20021006
Lab ID: 20021006-63
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	ND		24	mg/Kg-dry	1	2/20/2020 12:00 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**18**		**0.10**	**% of sample**	1	2/18/2020 01:48 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/17/20 13:08	Analyst: **JZB**
Phosphorus, Total	**360**		**130**	**mg/Kg-dry**	4	2/18/2020 11:37 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 10:11	Analyst: **DNW**
pH	**8.43**		**0.100**	**s.u.**	1	2/17/2020 12:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-13R 3-4'
Lab ID: 20021006-64
Collection Date: 2/13/2020 02:15 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/19/20 13:05		Analyst: **RM**
Aroclor 1016	ND		78	µg/Kg-dry	1	2/19/2020 09:14 PM
Aroclor 1221	ND		78	µg/Kg-dry	1	2/19/2020 09:14 PM
Aroclor 1232	ND		78	µg/Kg-dry	1	2/19/2020 09:14 PM
Aroclor 1242	ND		78	µg/Kg-dry	1	2/19/2020 09:14 PM
Aroclor 1248	ND		78	µg/Kg-dry	1	2/19/2020 09:14 PM
Aroclor 1254	ND		78	µg/Kg-dry	1	2/19/2020 09:14 PM
Aroclor 1260	ND		78	µg/Kg-dry	1	2/19/2020 09:14 PM
Aroclor 1262	ND		78	µg/Kg-dry	1	2/19/2020 09:14 PM
Aroclor 1268	ND		78	µg/Kg-dry	1	2/19/2020 09:14 PM
Surr: Decachlorobiphenyl	*52.7*		*40-140*	*%REC*	1	2/19/2020 09:14 PM
Surr: Tetrachloro-m-xylene	*63.8*		*45-124*	*%REC*	1	2/19/2020 09:14 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 11:48		Analyst: **RSH**
Mercury	ND		0.021	mg/Kg-dry	1	2/20/2020 03:17 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:32		Analyst: **DSC**
Arsenic	**7.4**		**0.50**	**mg/Kg-dry**	1	2/18/2020 10:44 PM
Barium	**68**		**0.50**	**mg/Kg-dry**	1	2/18/2020 10:44 PM
Cadmium	ND		0.20	mg/Kg-dry	1	2/18/2020 10:44 PM
Chromium	**14**		**0.50**	**mg/Kg-dry**	1	2/18/2020 10:44 PM
Copper	**18**		**0.50**	**mg/Kg-dry**	1	2/18/2020 10:44 PM
Lead	**10**		**0.50**	**mg/Kg-dry**	1	2/18/2020 10:44 PM
Nickel	**23**		**0.50**	**mg/Kg-dry**	1	2/18/2020 10:44 PM
Selenium	ND		0.50	mg/Kg-dry	1	2/19/2020 05:55 PM
Silver	ND		0.50	mg/Kg-dry	1	2/18/2020 10:44 PM
Thorium	**4.1**		**0.50**	**mg/Kg-dry**	1	2/18/2020 10:44 PM
Uranium	**1.9**		**0.50**	**mg/Kg-dry**	1	2/18/2020 10:44 PM
Zinc	**52**		**10**	**mg/Kg-dry**	10	2/19/2020 05:35 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/18/20 14:37		Analyst: **EEW**
1-Methylnaphthalene	**6.0**		**5.0**	**µg/Kg-dry**	1	2/19/2020 08:53 PM
2-Chloronaphthalene	ND		5.0	µg/Kg-dry	1	2/19/2020 08:53 PM
2-Methylnaphthalene	ND		5.0	µg/Kg-dry	1	2/19/2020 08:53 PM
Acenaphthene	**9.9**		**5.0**	**µg/Kg-dry**	1	2/19/2020 08:53 PM
Acenaphthylene	ND		5.0	µg/Kg-dry	1	2/19/2020 08:53 PM
Anthracene	**13**		**5.0**	**µg/Kg-dry**	1	2/19/2020 08:53 PM
Benzo(a)anthracene	**7.3**		**5.0**	**µg/Kg-dry**	1	2/19/2020 08:53 PM
Benzo(a)pyrene	ND		5.0	µg/Kg-dry	1	2/19/2020 08:53 PM
Benzo(b)fluoranthene	ND		5.0	µg/Kg-dry	1	2/19/2020 08:53 PM
Benzo(g,h,i)perylene	ND		5.0	µg/Kg-dry	1	2/19/2020 08:53 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-13R 3-4' **Lab ID:** 20021006-64
Collection Date: 2/13/2020 02:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.0	µg/Kg-dry	1	2/19/2020 08:53 PM
Chrysene	**6.3**		**5.0**	**µg/Kg-dry**	1	2/19/2020 08:53 PM
Dibenzo(a,h)anthracene	ND		5.0	µg/Kg-dry	1	2/19/2020 08:53 PM
Fluoranthene	**20**		**5.0**	**µg/Kg-dry**	1	2/19/2020 08:53 PM
Fluorene	**7.7**		**5.0**	**µg/Kg-dry**	1	2/19/2020 08:53 PM
Indeno(1,2,3-cd)pyrene	ND		5.0	µg/Kg-dry	1	2/19/2020 08:53 PM
Naphthalene	ND		5.0	µg/Kg-dry	1	2/19/2020 08:53 PM
Phenanthrene	**41**		**5.0**	**µg/Kg-dry**	1	2/19/2020 08:53 PM
Pyrene	**22**		**5.0**	**µg/Kg-dry**	1	2/19/2020 08:53 PM
Surr: 2-Fluorobiphenyl	*94.2*		*20-140*	*%REC*	1	2/19/2020 08:53 PM
Surr: 4-Terphenyl-d14	*111*		*22-172*	*%REC*	1	2/19/2020 08:53 PM
Surr: Nitrobenzene-d5	*88.9*		*28-140*	*%REC*	1	2/19/2020 08:53 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 14:26		Analyst: **SJB**
1,1,1,2-Tetrachloroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
1,1,1-Trichloroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
1,1,2,2-Tetrachloroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
1,1,2-Trichloroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
1,1,2-Trichlorotrifluoroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
1,1-Dichloroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
1,1-Dichloroethene	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
1,2,3-Trichloropropane	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
1,2,4-Trichlorobenzene	ND		140	µg/Kg-dry	1	2/20/2020 12:22 PM
1,2,4-Trimethylbenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
1,2-Dibromo-3-chloropropane	ND		140	µg/Kg-dry	1	2/20/2020 12:22 PM
1,2-Dibromoethane	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
1,2-Dichlorobenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
1,2-Dichloroethane	ND		140	µg/Kg-dry	1	2/20/2020 12:22 PM
1,2-Dichloropropane	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
1,3,5-Trimethylbenzene	ND		140	µg/Kg-dry	1	2/20/2020 12:22 PM
1,3-Dichlorobenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
1,4-Dichlorobenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
2-Butanone	ND		270	µg/Kg-dry	1	2/20/2020 12:22 PM
2-Hexanone	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
2-Methylnaphthalene	ND		140	µg/Kg-dry	1	2/20/2020 12:22 PM
4-Methyl-2-pentanone	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
Acetone	ND		140	µg/Kg-dry	1	2/20/2020 12:22 PM
Acrylonitrile	ND		140	µg/Kg-dry	1	2/20/2020 12:22 PM
Benzene	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
Bromochloromethane	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
Bromodichloromethane	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-13R 3-4'
Collection Date: 2/13/2020 02:15 PM

Work Order: 20021006
Lab ID: 20021006-64
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
Bromomethane	ND		140	µg/Kg-dry	1	2/20/2020 12:22 PM
Carbon disulfide	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
Carbon tetrachloride	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
Chlorobenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
Chloroethane	ND		140	µg/Kg-dry	1	2/20/2020 12:22 PM
Chloroform	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
Chloromethane	ND		140	µg/Kg-dry	1	2/20/2020 12:22 PM
cis-1,2-Dichloroethene	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
cis-1,3-Dichloropropene	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
Dibromochloromethane	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
Dibromomethane	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
Dichlorodifluoromethane	ND		140	µg/Kg-dry	1	2/20/2020 12:22 PM
Diethyl ether	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
Ethylbenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
Hexachloroethane	ND		140	µg/Kg-dry	1	2/20/2020 12:22 PM
Isopropylbenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
m,p-Xylene	ND		82	µg/Kg-dry	1	2/20/2020 12:22 PM
Methyl iodide	ND		680	µg/Kg-dry	1	2/20/2020 12:22 PM
Methyl tert-butyl ether	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
Methylene chloride	ND		340	µg/Kg-dry	1	2/20/2020 12:22 PM
Naphthalene	ND		140	µg/Kg-dry	1	2/20/2020 12:22 PM
n-Propylbenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
o-Xylene	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
Styrene	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
Tetrachloroethene	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
Toluene	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
trans-1,2-Dichloroethene	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
trans-1,3-Dichloropropene	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
trans-1,4-Dichloro-2-butene	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
Trichloroethene	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
Trichlorofluoromethane	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
Vinyl acetate	ND		340	µg/Kg-dry	1	2/20/2020 12:22 PM
Vinyl chloride	ND		41	µg/Kg-dry	1	2/20/2020 12:22 PM
Xylenes, Total	ND		120	µg/Kg-dry	1	2/20/2020 12:22 PM
Surr: 1,2-Dichloroethane-d4	*99.9*		*70-130*	*%REC*	1	2/20/2020 12:22 PM
Surr: 4-Bromofluorobenzene	*97.6*		*70-130*	*%REC*	1	2/20/2020 12:22 PM
Surr: Dibromofluoromethane	*80.4*		*70-130*	*%REC*	1	2/20/2020 12:22 PM
Surr: Toluene-d8	*102*		*70-130*	*%REC*	1	2/20/2020 12:22 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 15:33 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-13R 3-4'
Collection Date: 2/13/2020 02:15 PM

Work Order: 20021006
Lab ID: 20021006-64
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	ND		24	mg/Kg-dry	1	2/20/2020 12:00 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**18**		**0.10**	**% of sample**	1	2/18/2020 01:48 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/17/20 13:08	Analyst: **JZB**
Phosphorus, Total	**380**		**150**	**mg/Kg-dry**	4	2/18/2020 11:38 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 10:11	Analyst: **DNW**
pH	**8.45**		**0.100**	**s.u.**	1	2/17/2020 12:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-13R 4-5' **Lab ID:** 20021006-65
Collection Date: 2/13/2020 02:20 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/19/20 13:05		Analyst: **RM**
Aroclor 1016	ND		80	µg/Kg-dry	1	2/19/2020 09:29 PM
Aroclor 1221	ND		80	µg/Kg-dry	1	2/19/2020 09:29 PM
Aroclor 1232	ND		80	µg/Kg-dry	1	2/19/2020 09:29 PM
Aroclor 1242	ND		80	µg/Kg-dry	1	2/19/2020 09:29 PM
Aroclor 1248	ND		80	µg/Kg-dry	1	2/19/2020 09:29 PM
Aroclor 1254	ND		80	µg/Kg-dry	1	2/19/2020 09:29 PM
Aroclor 1260	ND		80	µg/Kg-dry	1	2/19/2020 09:29 PM
Aroclor 1262	ND		80	µg/Kg-dry	1	2/19/2020 09:29 PM
Aroclor 1268	ND		80	µg/Kg-dry	1	2/19/2020 09:29 PM
Surr: Decachlorobiphenyl	*41.3*		*40-140*	*%REC*	1	2/19/2020 09:29 PM
Surr: Tetrachloro-m-xylene	*58.2*		*45-124*	*%REC*	1	2/19/2020 09:29 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 11:48		Analyst: **RSH**
Mercury	ND		0.023	mg/Kg-dry	1	2/20/2020 03:20 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:32		Analyst: **DSC**
Arsenic	**6.1**		**0.43**	**mg/Kg-dry**	1	2/18/2020 10:46 PM
Barium	**74**		**0.43**	**mg/Kg-dry**	1	2/18/2020 10:46 PM
Cadmium	ND		0.17	mg/Kg-dry	1	2/18/2020 10:46 PM
Chromium	**14**		**0.43**	**mg/Kg-dry**	1	2/18/2020 10:46 PM
Copper	**15**		**0.43**	**mg/Kg-dry**	1	2/18/2020 10:46 PM
Lead	**9.0**		**0.43**	**mg/Kg-dry**	1	2/18/2020 10:46 PM
Nickel	**22**		**0.43**	**mg/Kg-dry**	1	2/18/2020 10:46 PM
Selenium	ND		0.43	mg/Kg-dry	1	2/19/2020 05:57 PM
Silver	ND		0.43	mg/Kg-dry	1	2/18/2020 10:46 PM
Thorium	**3.9**		**0.43**	**mg/Kg-dry**	1	2/18/2020 10:46 PM
Uranium	**1.6**		**0.43**	**mg/Kg-dry**	1	2/18/2020 10:46 PM
Zinc	**51**		**8.5**	**mg/Kg-dry**	10	2/19/2020 05:37 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/18/20 14:37		Analyst: **EEW**
1-Methylnaphthalene	ND		5.1	µg/Kg-dry	1	2/19/2020 09:08 PM
2-Chloronaphthalene	ND		5.1	µg/Kg-dry	1	2/19/2020 09:08 PM
2-Methylnaphthalene	ND		5.1	µg/Kg-dry	1	2/19/2020 09:08 PM
Acenaphthene	ND		5.1	µg/Kg-dry	1	2/19/2020 09:08 PM
Acenaphthylene	ND		5.1	µg/Kg-dry	1	2/19/2020 09:08 PM
Anthracene	**9.4**		**5.1**	**µg/Kg-dry**	1	2/19/2020 09:08 PM
Benzo(a)anthracene	ND		5.1	µg/Kg-dry	1	2/19/2020 09:08 PM
Benzo(a)pyrene	ND		5.1	µg/Kg-dry	1	2/19/2020 09:08 PM
Benzo(b)fluoranthene	ND		5.1	µg/Kg-dry	1	2/19/2020 09:08 PM
Benzo(g,h,i)perylene	ND		5.1	µg/Kg-dry	1	2/19/2020 09:08 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-13R 4-5' **Lab ID:** 20021006-65
Collection Date: 2/13/2020 02:20 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.1	µg/Kg-dry	1	2/19/2020 09:08 PM
Chrysene	ND		5.1	µg/Kg-dry	1	2/19/2020 09:08 PM
Dibenzo(a,h)anthracene	ND		5.1	µg/Kg-dry	1	2/19/2020 09:08 PM
Fluoranthene	**16**		**5.1**	**µg/Kg-dry**	1	2/19/2020 09:08 PM
Fluorene	ND		5.1	µg/Kg-dry	1	2/19/2020 09:08 PM
Indeno(1,2,3-cd)pyrene	ND		5.1	µg/Kg-dry	1	2/19/2020 09:08 PM
Naphthalene	ND		5.1	µg/Kg-dry	1	2/19/2020 09:08 PM
Phenanthrene	**32**		**5.1**	**µg/Kg-dry**	1	2/19/2020 09:08 PM
Pyrene	**13**		**5.1**	**µg/Kg-dry**	1	2/19/2020 09:08 PM
Surr: 2-Fluorobiphenyl	*94.1*		*20-140*	*%REC*	1	2/19/2020 09:08 PM
Surr: 4-Terphenyl-d14	*112*		*22-172*	*%REC*	1	2/19/2020 09:08 PM
Surr: Nitrobenzene-d5	*88.2*		*28-140*	*%REC*	1	2/19/2020 09:08 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 14:26		Analyst: **SJB**
1,1,1,2-Tetrachloroethane	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
1,1,1-Trichloroethane	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
1,1,2,2-Tetrachloroethane	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
1,1,2-Trichloroethane	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
1,1,2-Trichlorotrifluoroethane	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
1,1-Dichloroethane	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
1,1-Dichloroethene	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
1,2,3-Trichloropropane	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
1,2,4-Trichlorobenzene	ND		140	µg/Kg-dry	1	2/20/2020 12:43 PM
1,2,4-Trimethylbenzene	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
1,2-Dibromo-3-chloropropane	ND		140	µg/Kg-dry	1	2/20/2020 12:43 PM
1,2-Dibromoethane	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
1,2-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
1,2-Dichloroethane	ND		140	µg/Kg-dry	1	2/20/2020 12:43 PM
1,2-Dichloropropane	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
1,3,5-Trimethylbenzene	ND		140	µg/Kg-dry	1	2/20/2020 12:43 PM
1,3-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
1,4-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
2-Butanone	ND		290	µg/Kg-dry	1	2/20/2020 12:43 PM
2-Hexanone	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
2-Methylnaphthalene	ND		140	µg/Kg-dry	1	2/20/2020 12:43 PM
4-Methyl-2-pentanone	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
Acetone	ND		140	µg/Kg-dry	1	2/20/2020 12:43 PM
Acrylonitrile	ND		140	µg/Kg-dry	1	2/20/2020 12:43 PM
Benzene	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
Bromochloromethane	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
Bromodichloromethane	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-13R 4-5'
Collection Date: 2/13/2020 02:20 PM

Work Order: 20021006
Lab ID: 20021006-65
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
Bromomethane	ND		140	µg/Kg-dry	1	2/20/2020 12:43 PM
Carbon disulfide	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
Carbon tetrachloride	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
Chlorobenzene	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
Chloroethane	ND		140	µg/Kg-dry	1	2/20/2020 12:43 PM
Chloroform	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
Chloromethane	ND		140	µg/Kg-dry	1	2/20/2020 12:43 PM
cis-1,2-Dichloroethene	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
cis-1,3-Dichloropropene	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
Dibromochloromethane	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
Dibromomethane	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
Dichlorodifluoromethane	ND		140	µg/Kg-dry	1	2/20/2020 12:43 PM
Diethyl ether	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
Ethylbenzene	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
Hexachloroethane	ND		140	µg/Kg-dry	1	2/20/2020 12:43 PM
Isopropylbenzene	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
m,p-Xylene	ND		86	µg/Kg-dry	1	2/20/2020 12:43 PM
Methyl iodide	ND		720	µg/Kg-dry	1	2/20/2020 12:43 PM
Methyl tert-butyl ether	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
Methylene chloride	ND		360	µg/Kg-dry	1	2/20/2020 12:43 PM
Naphthalene	ND		140	µg/Kg-dry	1	2/20/2020 12:43 PM
n-Propylbenzene	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
o-Xylene	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
Styrene	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
Tetrachloroethene	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
Toluene	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
trans-1,2-Dichloroethene	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
trans-1,3-Dichloropropene	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
trans-1,4-Dichloro-2-butene	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
Trichloroethene	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
Trichlorofluoromethane	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
Vinyl acetate	ND		360	µg/Kg-dry	1	2/20/2020 12:43 PM
Vinyl chloride	ND		43	µg/Kg-dry	1	2/20/2020 12:43 PM
Xylenes, Total	ND		130	µg/Kg-dry	1	2/20/2020 12:43 PM
Surr: 1,2-Dichloroethane-d4	*98.4*		*70-130*	*%REC*	1	2/20/2020 12:43 PM
Surr: 4-Bromofluorobenzene	*96.2*		*70-130*	*%REC*	1	2/20/2020 12:43 PM
Surr: Dibromofluoromethane	*79.7*		*70-130*	*%REC*	1	2/20/2020 12:43 PM
Surr: Toluene-d8	*101*		*70-130*	*%REC*	1	2/20/2020 12:43 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 15:33 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-13R 4-5'
Lab ID: 20021006-65
Collection Date: 2/13/2020 02:20 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor		Date Analyzed
Biochemical Oxygen Demand	**180**		**25**	**mg/Kg-dry**	1		2/20/2020 12:00 PM
MOISTURE			**SW3550C**				Analyst: **KTP**
Moisture	**19**		**0.10**	**% of sample**	1		2/18/2020 01:48 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**			Prep: E365.1 R2.0 2/17/20 13:08	Analyst: **JZB**
Phosphorus, Total	**390**		**130**	**mg/Kg-dry**	4		2/18/2020 11:39 AM
PH			**SW9045D**			Prep: EXTRACT 2/17/20 10:11	Analyst: **DNW**
pH	**8.44**		**0.100**	**s.u.**	1		2/17/2020 12:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-3 3-4'
Collection Date: 2/13/2020 04:00 PM

Work Order: 20021006
Lab ID: 20021006-66
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/19/20 13:05		Analyst: **RM**
Aroclor 1016	ND		620	µg/Kg-dry	1	2/19/2020 09:44 PM
Aroclor 1221	ND		620	µg/Kg-dry	1	2/19/2020 09:44 PM
Aroclor 1232	ND		620	µg/Kg-dry	1	2/19/2020 09:44 PM
Aroclor 1242	ND		620	µg/Kg-dry	1	2/19/2020 09:44 PM
Aroclor 1248	ND		620	µg/Kg-dry	1	2/19/2020 09:44 PM
Aroclor 1254	ND		620	µg/Kg-dry	1	2/19/2020 09:44 PM
Aroclor 1260	ND		620	µg/Kg-dry	1	2/19/2020 09:44 PM
Aroclor 1262	ND		620	µg/Kg-dry	1	2/19/2020 09:44 PM
Aroclor 1268	ND		620	µg/Kg-dry	1	2/19/2020 09:44 PM
Surr: Decachlorobiphenyl	*75.6*		*40-140*	*%REC*	1	2/19/2020 09:44 PM
Surr: Tetrachloro-m-xylene	*81.0*		*45-124*	*%REC*	1	2/19/2020 09:44 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 11:48		Analyst: **RSH**
Mercury	**0.42**		**0.032**	**mg/Kg-dry**	1	2/20/2020 03:22 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:32		Analyst: **DSC**
Arsenic	**11**		**0.60**	**mg/Kg-dry**	1	2/18/2020 10:48 PM
Barium	**100**		**0.60**	**mg/Kg-dry**	1	2/18/2020 10:48 PM
Cadmium	**15**		**0.24**	**mg/Kg-dry**	1	2/18/2020 10:48 PM
Chromium	**110**		**0.60**	**mg/Kg-dry**	1	2/18/2020 10:48 PM
Copper	**2,100**		**60**	**mg/Kg-dry**	100	2/19/2020 05:38 PM
Lead	**560**		**60**	**mg/Kg-dry**	100	2/19/2020 05:38 PM
Nickel	**14**		**0.60**	**mg/Kg-dry**	1	2/18/2020 10:48 PM
Selenium	ND		0.60	mg/Kg-dry	1	2/19/2020 05:59 PM
Silver	**2.0**		**0.60**	**mg/Kg-dry**	1	2/18/2020 10:48 PM
Thorium	**1.9**		**0.60**	**mg/Kg-dry**	1	2/18/2020 10:48 PM
Uranium	**1.5**		**0.60**	**mg/Kg-dry**	1	2/18/2020 10:48 PM
Zinc	**2,300**		**120**	**mg/Kg-dry**	100	2/19/2020 05:38 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/18/20 14:37		Analyst: **EEW**
1-Methylnaphthalene	**130**		**28**	**µg/Kg-dry**	1	2/19/2020 09:24 PM
2-Chloronaphthalene	ND		28	µg/Kg-dry	1	2/19/2020 09:24 PM
2-Methylnaphthalene	**94**		**28**	**µg/Kg-dry**	1	2/19/2020 09:24 PM
Acenaphthene	**570**		**28**	**µg/Kg-dry**	1	2/19/2020 09:24 PM
Acenaphthylene	**110**		**28**	**µg/Kg-dry**	1	2/19/2020 09:24 PM
Anthracene	**380**		**28**	**µg/Kg-dry**	1	2/19/2020 09:24 PM
Benzo(a)anthracene	**820**		**28**	**µg/Kg-dry**	1	2/19/2020 09:24 PM
Benzo(a)pyrene	**650**		**28**	**µg/Kg-dry**	1	2/19/2020 09:24 PM
Benzo(b)fluoranthene	**780**		**28**	**µg/Kg-dry**	1	2/19/2020 09:24 PM
Benzo(g,h,i)perylene	**430**		**28**	**µg/Kg-dry**	1	2/19/2020 09:24 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-3 3-4'
Collection Date: 2/13/2020 04:00 PM

Work Order: 20021006
Lab ID: 20021006-66
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**220**		**28**	**µg/Kg-dry**	1	2/19/2020 09:24 PM
Chrysene	**920**		**28**	**µg/Kg-dry**	1	2/19/2020 09:24 PM
Dibenzo(a,h)anthracene	**82**		**28**	**µg/Kg-dry**	1	2/19/2020 09:24 PM
Fluoranthene	**2,000**		**28**	**µg/Kg-dry**	1	2/19/2020 09:24 PM
Fluorene	**290**		**28**	**µg/Kg-dry**	1	2/19/2020 09:24 PM
Indeno(1,2,3-cd)pyrene	**390**		**28**	**µg/Kg-dry**	1	2/19/2020 09:24 PM
Naphthalene	**96**		**28**	**µg/Kg-dry**	1	2/19/2020 09:24 PM
Phenanthrene	**1,600**		**28**	**µg/Kg-dry**	1	2/19/2020 09:24 PM
Pyrene	**1,600**		**28**	**µg/Kg-dry**	1	2/19/2020 09:24 PM
Surr: 2-Fluorobiphenyl	*96.7*		*20-140*	*%REC*	1	2/19/2020 09:24 PM
Surr: 4-Terphenyl-d14	*82.8*		*22-172*	*%REC*	1	2/19/2020 09:24 PM
Surr: Nitrobenzene-d5	*74.7*		*28-140*	*%REC*	1	2/19/2020 09:24 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 14:26		Analyst: **SJB**
1,1,1,2-Tetrachloroethane	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
1,1,1-Trichloroethane	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
1,1,2,2-Tetrachloroethane	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
1,1,2-Trichloroethane	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
1,1,2-Trichlorotrifluoroethane	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
1,1-Dichloroethane	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
1,1-Dichloroethene	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
1,2,3-Trichloropropane	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
1,2,4-Trichlorobenzene	ND		260	µg/Kg-dry	1	2/20/2020 01:04 AM
1,2,4-Trimethylbenzene	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
1,2-Dibromo-3-chloropropane	ND		260	µg/Kg-dry	1	2/20/2020 01:04 AM
1,2-Dibromoethane	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
1,2-Dichlorobenzene	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
1,2-Dichloroethane	ND		260	µg/Kg-dry	1	2/20/2020 01:04 AM
1,2-Dichloropropane	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
1,3,5-Trimethylbenzene	ND		260	µg/Kg-dry	1	2/20/2020 01:04 AM
1,3-Dichlorobenzene	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
1,4-Dichlorobenzene	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
2-Butanone	ND		520	µg/Kg-dry	1	2/20/2020 01:04 AM
2-Hexanone	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
2-Methylnaphthalene	ND		260	µg/Kg-dry	1	2/20/2020 01:04 AM
4-Methyl-2-pentanone	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
Acetone	ND		260	µg/Kg-dry	1	2/20/2020 01:04 AM
Acrylonitrile	ND		260	µg/Kg-dry	1	2/20/2020 01:04 AM
Benzene	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
Bromochloromethane	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
Bromodichloromethane	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-3 3-4' **Lab ID:** 20021006-66
Collection Date: 2/13/2020 04:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
Bromomethane	ND		260	µg/Kg-dry	1	2/20/2020 01:04 AM
Carbon disulfide	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
Carbon tetrachloride	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
Chlorobenzene	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
Chloroethane	ND		260	µg/Kg-dry	1	2/20/2020 01:04 AM
Chloroform	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
Chloromethane	ND		260	µg/Kg-dry	1	2/20/2020 01:04 AM
cis-1,2-Dichloroethene	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
cis-1,3-Dichloropropene	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
Dibromochloromethane	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
Dibromomethane	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
Dichlorodifluoromethane	ND		260	µg/Kg-dry	1	2/20/2020 01:04 AM
Diethyl ether	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
Ethylbenzene	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
Hexachloroethane	ND		260	µg/Kg-dry	1	2/20/2020 01:04 AM
Isopropylbenzene	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
m,p-Xylene	ND		160	µg/Kg-dry	1	2/20/2020 01:04 AM
Methyl iodide	ND		1,300	µg/Kg-dry	1	2/20/2020 01:04 AM
Methyl tert-butyl ether	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
Methylene chloride	ND		660	µg/Kg-dry	1	2/20/2020 01:04 AM
Naphthalene	**290**		**260**	**µg/Kg-dry**	1	2/20/2020 01:04 AM
n-Propylbenzene	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
o-Xylene	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
Styrene	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
Tetrachloroethene	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
Toluene	**98**		**79**	**µg/Kg-dry**	1	2/20/2020 01:04 AM
trans-1,2-Dichloroethene	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
trans-1,3-Dichloropropene	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
trans-1,4-Dichloro-2-butene	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
Trichloroethene	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
Trichlorofluoromethane	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
Vinyl acetate	ND		660	µg/Kg-dry	1	2/20/2020 01:04 AM
Vinyl chloride	ND		79	µg/Kg-dry	1	2/20/2020 01:04 AM
Xylenes, Total	ND		240	µg/Kg-dry	1	2/20/2020 01:04 AM
Surr: 1,2-Dichloroethane-d4	*99.4*		*70-130*	*%REC*	1	2/20/2020 01:04 AM
Surr: 4-Bromofluorobenzene	*101*		*70-130*	*%REC*	1	2/20/2020 01:04 AM
Surr: Dibromofluoromethane	*83.1*		*70-130*	*%REC*	1	2/20/2020 01:04 AM
Surr: Toluene-d8	*100*		*70-130*	*%REC*	1	2/20/2020 01:04 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 15:33 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-3 3-4'
Lab ID: 20021006-66
Collection Date: 2/13/2020 04:00 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor		Date Analyzed
Biochemical Oxygen Demand	**240**		**36**	**mg/Kg-dry**	1		2/20/2020 12:00 PM
MOISTURE			**SW3550C**				Analyst: **KTP**
Moisture	**45**		**0.10**	**% of sample**	1		2/18/2020 01:48 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0	2/17/20 13:08	Analyst: **JZB**
Phosphorus, Total	**450**		**190**	**mg/Kg-dry**	4		2/18/2020 11:40 AM
PH			**SW9045D**		Prep: EXTRACT	2/17/20 10:11	Analyst: **DNW**
pH	**8.18**		**0.100**	**s.u.**	1		2/17/2020 12:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-3 7-8'
Collection Date: 2/13/2020 04:05 PM

Work Order: 20021006
Lab ID: 20021006-67
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/19/20 13:05		Analyst: **RM**
Aroclor 1016	ND		1,100	µg/Kg-dry	1	2/19/2020 10:00 PM
Aroclor 1221	ND		1,100	µg/Kg-dry	1	2/19/2020 10:00 PM
Aroclor 1232	ND		1,100	µg/Kg-dry	1	2/19/2020 10:00 PM
Aroclor 1242	ND		1,100	µg/Kg-dry	1	2/19/2020 10:00 PM
Aroclor 1248	ND		1,100	µg/Kg-dry	1	2/19/2020 10:00 PM
Aroclor 1254	ND		1,100	µg/Kg-dry	1	2/19/2020 10:00 PM
Aroclor 1260	ND		1,100	µg/Kg-dry	1	2/19/2020 10:00 PM
Aroclor 1262	ND		1,100	µg/Kg-dry	1	2/19/2020 10:00 PM
Aroclor 1268	ND		1,100	µg/Kg-dry	1	2/19/2020 10:00 PM
Surr: Decachlorobiphenyl	*73.7*		*40-140*	*%REC*	1	2/19/2020 10:00 PM
Surr: Tetrachloro-m-xylene	*82.1*		*45-124*	*%REC*	1	2/19/2020 10:00 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 11:48		Analyst: **RSH**
Mercury	**0.24**		**0.039**	**mg/Kg-dry**	1	2/20/2020 03:24 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:32		Analyst: **DSC**
Arsenic	**7.4**		**0.84**	**mg/Kg-dry**	1	2/18/2020 10:49 PM
Barium	**98**		**0.84**	**mg/Kg-dry**	1	2/18/2020 10:49 PM
Cadmium	**6.0**		**0.34**	**mg/Kg-dry**	1	2/18/2020 10:49 PM
Chromium	**100**		**0.84**	**mg/Kg-dry**	1	2/18/2020 10:49 PM
Copper	**2,200**		**84**	**mg/Kg-dry**	100	2/19/2020 05:40 PM
Lead	**420**		**84**	**mg/Kg-dry**	100	2/19/2020 05:40 PM
Nickel	**23**		**0.84**	**mg/Kg-dry**	1	2/18/2020 10:49 PM
Selenium	ND		0.84	mg/Kg-dry	1	2/19/2020 06:07 PM
Silver	ND		0.84	mg/Kg-dry	1	2/18/2020 10:49 PM
Thorium	**1.8**		**0.84**	**mg/Kg-dry**	1	2/18/2020 10:49 PM
Uranium	**1.4**		**0.84**	**mg/Kg-dry**	1	2/18/2020 10:49 PM
Zinc	**1,300**		**170**	**mg/Kg-dry**	100	2/19/2020 05:40 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/18/20 14:37		Analyst: **EEW**
1-Methylnaphthalene	**410**		**43**	**µg/Kg-dry**	1	2/19/2020 09:39 PM
2-Chloronaphthalene	ND		43	µg/Kg-dry	1	2/19/2020 09:39 PM
2-Methylnaphthalene	**520**		**43**	**µg/Kg-dry**	1	2/19/2020 09:39 PM
Acenaphthene	**600**		**43**	**µg/Kg-dry**	1	2/19/2020 09:39 PM
Acenaphthylene	**180**		**43**	**µg/Kg-dry**	1	2/19/2020 09:39 PM
Anthracene	**880**		**43**	**µg/Kg-dry**	1	2/19/2020 09:39 PM
Benzo(a)anthracene	**1,400**		**43**	**µg/Kg-dry**	1	2/19/2020 09:39 PM
Benzo(a)pyrene	**1,000**		**43**	**µg/Kg-dry**	1	2/19/2020 09:39 PM
Benzo(b)fluoranthene	**1,200**		**43**	**µg/Kg-dry**	1	2/19/2020 09:39 PM
Benzo(g,h,i)perylene	**630**		**43**	**µg/Kg-dry**	1	2/19/2020 09:39 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-3 7-8' **Lab ID:** 20021006-67
Collection Date: 2/13/2020 04:05 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**330**		**43**	**µg/Kg-dry**	1	2/19/2020 09:39 PM
Chrysene	**1,500**		**43**	**µg/Kg-dry**	1	2/19/2020 09:39 PM
Dibenzo(a,h)anthracene	**140**		**43**	**µg/Kg-dry**	1	2/19/2020 09:39 PM
Fluoranthene	**3,600**		**43**	**µg/Kg-dry**	1	2/19/2020 09:39 PM
Fluorene	**600**		**43**	**µg/Kg-dry**	1	2/19/2020 09:39 PM
Indeno(1,2,3-cd)pyrene	**570**		**43**	**µg/Kg-dry**	1	2/19/2020 09:39 PM
Naphthalene	**290**		**43**	**µg/Kg-dry**	1	2/19/2020 09:39 PM
Phenanthrene	**3,700**		**43**	**µg/Kg-dry**	1	2/19/2020 09:39 PM
Pyrene	**2,200**		**43**	**µg/Kg-dry**	1	2/19/2020 09:39 PM
Surr: 2-Fluorobiphenyl	*97.7*		*20-140*	*%REC*	1	2/19/2020 09:39 PM
Surr: 4-Terphenyl-d14	*81.6*		*22-172*	*%REC*	1	2/19/2020 09:39 PM
Surr: Nitrobenzene-d5	*70.3*		*28-140*	*%REC*	1	2/19/2020 09:39 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 14:26		Analyst: **SJB**
1,1,1,2-Tetrachloroethane	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
1,1,1-Trichloroethane	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
1,1,2,2-Tetrachloroethane	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
1,1,2-Trichloroethane	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
1,1,2-Trichlorotrifluoroethane	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
1,1-Dichloroethane	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
1,1-Dichloroethene	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
1,2,3-Trichloropropane	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
1,2,4-Trichlorobenzene	ND		350	µg/Kg-dry	1	2/20/2020 01:25 AM
1,2,4-Trimethylbenzene	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
1,2-Dibromo-3-chloropropane	ND		350	µg/Kg-dry	1	2/20/2020 01:25 AM
1,2-Dibromoethane	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
1,2-Dichlorobenzene	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
1,2-Dichloroethane	ND		350	µg/Kg-dry	1	2/20/2020 01:25 AM
1,2-Dichloropropane	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
1,3,5-Trimethylbenzene	ND		350	µg/Kg-dry	1	2/20/2020 01:25 AM
1,3-Dichlorobenzene	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
1,4-Dichlorobenzene	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
2-Butanone	ND		710	µg/Kg-dry	1	2/20/2020 01:25 AM
2-Hexanone	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
2-Methylnaphthalene	ND		350	µg/Kg-dry	1	2/20/2020 01:25 AM
4-Methyl-2-pentanone	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
Acetone	ND		350	µg/Kg-dry	1	2/20/2020 01:25 AM
Acrylonitrile	ND		350	µg/Kg-dry	1	2/20/2020 01:25 AM
Benzene	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
Bromochloromethane	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
Bromodichloromethane	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-3 7-8' **Lab ID:** 20021006-67
Collection Date: 2/13/2020 04:05 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
Bromomethane	ND		350	µg/Kg-dry	1	2/20/2020 01:25 AM
Carbon disulfide	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
Carbon tetrachloride	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
Chlorobenzene	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
Chloroethane	ND		350	µg/Kg-dry	1	2/20/2020 01:25 AM
Chloroform	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
Chloromethane	ND		350	µg/Kg-dry	1	2/20/2020 01:25 AM
cis-1,2-Dichloroethene	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
cis-1,3-Dichloropropene	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
Dibromochloromethane	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
Dibromomethane	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
Dichlorodifluoromethane	ND		350	µg/Kg-dry	1	2/20/2020 01:25 AM
Diethyl ether	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
Ethylbenzene	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
Hexachloroethane	ND		350	µg/Kg-dry	1	2/20/2020 01:25 AM
Isopropylbenzene	**480**		**110**	**µg/Kg-dry**	1	2/20/2020 01:25 AM
m,p-Xylene	ND		210	µg/Kg-dry	1	2/20/2020 01:25 AM
Methyl iodide	ND		1,800	µg/Kg-dry	1	2/20/2020 01:25 AM
Methyl tert-butyl ether	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
Methylene chloride	ND		890	µg/Kg-dry	1	2/20/2020 01:25 AM
Naphthalene	ND		350	µg/Kg-dry	1	2/20/2020 01:25 AM
n-Propylbenzene	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
o-Xylene	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
Styrene	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
Tetrachloroethene	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
Toluene	**200**		**110**	**µg/Kg-dry**	1	2/20/2020 01:25 AM
trans-1,2-Dichloroethene	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
trans-1,3-Dichloropropene	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
trans-1,4-Dichloro-2-butene	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
Trichloroethene	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
Trichlorofluoromethane	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
Vinyl acetate	ND		890	µg/Kg-dry	1	2/20/2020 01:25 AM
Vinyl chloride	ND		110	µg/Kg-dry	1	2/20/2020 01:25 AM
Xylenes, Total	ND		320	µg/Kg-dry	1	2/20/2020 01:25 AM
Surr: 1,2-Dichloroethane-d4	*98.6*		*70-130*	*%REC*	1	2/20/2020 01:25 AM
Surr: 4-Bromofluorobenzene	*97.2*		*70-130*	*%REC*	1	2/20/2020 01:25 AM
Surr: Dibromofluoromethane	*79.5*		*70-130*	*%REC*	1	2/20/2020 01:25 AM
Surr: Toluene-d8	*99.6*		*70-130*	*%REC*	1	2/20/2020 01:25 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 15:33 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-3 7-8'
Lab ID: 20021006-67
Collection Date: 2/13/2020 04:05 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**3,800**		**45**	**mg/Kg-dry**	1	2/20/2020 12:00 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**56**		**0.10**	**% of sample**	1	2/18/2020 01:48 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/17/20 13:08	Analyst: **JZB**
Phosphorus, Total	**190**		**54**	**mg/Kg-dry**	1	2/18/2020 11:10 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 10:11	Analyst: **DNW**
pH	**8.11**		**0.100**	**s.u.**	1	2/17/2020 12:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-3 10-11' **Lab ID:** 20021006-68
Collection Date: 2/13/2020 04:10 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/19/20 13:05		Analyst: **RM**
Aroclor 1016	ND		87	µg/Kg-dry	1	2/19/2020 10:15 PM
Aroclor 1221	ND		87	µg/Kg-dry	1	2/19/2020 10:15 PM
Aroclor 1232	ND		87	µg/Kg-dry	1	2/19/2020 10:15 PM
Aroclor 1242	ND		87	µg/Kg-dry	1	2/19/2020 10:15 PM
Aroclor 1248	ND		87	µg/Kg-dry	1	2/19/2020 10:15 PM
Aroclor 1254	ND		87	µg/Kg-dry	1	2/19/2020 10:15 PM
Aroclor 1260	ND		87	µg/Kg-dry	1	2/19/2020 10:15 PM
Aroclor 1262	ND		87	µg/Kg-dry	1	2/19/2020 10:15 PM
Aroclor 1268	ND		87	µg/Kg-dry	1	2/19/2020 10:15 PM
Surr: Decachlorobiphenyl	*56.2*		*40-140*	*%REC*	1	2/19/2020 10:15 PM
Surr: Tetrachloro-m-xylene	*68.4*		*45-124*	*%REC*	1	2/19/2020 10:15 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 11:48		Analyst: **RSH**
Mercury	ND		0.023	mg/Kg-dry	1	2/20/2020 03:26 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/18/20 17:32		Analyst: **DSC**
Arsenic	**4.6**		**0.46**	**mg/Kg-dry**	1	2/18/2020 10:59 PM
Barium	**88**		**0.46**	**mg/Kg-dry**	1	2/18/2020 10:59 PM
Cadmium	ND		0.18	mg/Kg-dry	1	2/18/2020 10:59 PM
Chromium	**19**		**0.46**	**mg/Kg-dry**	1	2/18/2020 10:59 PM
Copper	**35**		**4.6**	**mg/Kg-dry**	10	2/19/2020 05:42 PM
Lead	**14**		**0.46**	**mg/Kg-dry**	1	2/18/2020 10:59 PM
Nickel	**24**		**0.46**	**mg/Kg-dry**	1	2/18/2020 10:59 PM
Selenium	ND		0.46	mg/Kg-dry	1	2/19/2020 06:08 PM
Silver	ND		0.46	mg/Kg-dry	1	2/18/2020 10:59 PM
Thorium	**5.0**		**0.46**	**mg/Kg-dry**	1	2/18/2020 10:59 PM
Uranium	**1.2**		**0.46**	**mg/Kg-dry**	1	2/18/2020 10:59 PM
Zinc	**71**		**9.1**	**mg/Kg-dry**	10	2/19/2020 05:42 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/18/20 14:37		Analyst: **EEW**
1-Methylnaphthalene	ND		13	µg/Kg-dry	1	2/19/2020 09:55 PM
2-Chloronaphthalene	ND		13	µg/Kg-dry	1	2/19/2020 09:55 PM
2-Methylnaphthalene	ND		13	µg/Kg-dry	1	2/19/2020 09:55 PM
Acenaphthene	ND		13	µg/Kg-dry	1	2/19/2020 09:55 PM
Acenaphthylene	ND		13	µg/Kg-dry	1	2/19/2020 09:55 PM
Anthracene	ND		13	µg/Kg-dry	1	2/19/2020 09:55 PM
Benzo(a)anthracene	ND		13	µg/Kg-dry	1	2/19/2020 09:55 PM
Benzo(a)pyrene	ND		13	µg/Kg-dry	1	2/19/2020 09:55 PM
Benzo(b)fluoranthene	ND		13	µg/Kg-dry	1	2/19/2020 09:55 PM
Benzo(g,h,i)perylene	ND		13	µg/Kg-dry	1	2/19/2020 09:55 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-3 10-11' **Lab ID:** 20021006-68
Collection Date: 2/13/2020 04:10 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		13	µg/Kg-dry	1	2/19/2020 09:55 PM
Chrysene	ND		13	µg/Kg-dry	1	2/19/2020 09:55 PM
Dibenzo(a,h)anthracene	ND		13	µg/Kg-dry	1	2/19/2020 09:55 PM
Fluoranthene	ND		13	µg/Kg-dry	1	2/19/2020 09:55 PM
Fluorene	ND		13	µg/Kg-dry	1	2/19/2020 09:55 PM
Indeno(1,2,3-cd)pyrene	ND		13	µg/Kg-dry	1	2/19/2020 09:55 PM
Naphthalene	ND		13	µg/Kg-dry	1	2/19/2020 09:55 PM
Phenanthrene	ND		13	µg/Kg-dry	1	2/19/2020 09:55 PM
Pyrene	ND		13	µg/Kg-dry	1	2/19/2020 09:55 PM
Surr: 2-Fluorobiphenyl	*88.3*		*20-140*	*%REC*	1	2/19/2020 09:55 PM
Surr: 4-Terphenyl-d14	*79.7*		*22-172*	*%REC*	1	2/19/2020 09:55 PM
Surr: Nitrobenzene-d5	*79.4*		*28-140*	*%REC*	1	2/19/2020 09:55 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 14:26		Analyst: **SJB**
1,1,1,2-Tetrachloroethane	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
1,1,1-Trichloroethane	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
1,1,2,2-Tetrachloroethane	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
1,1,2-Trichloroethane	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
1,1,2-Trichlorotrifluoroethane	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
1,1-Dichloroethane	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
1,1-Dichloroethene	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
1,2,3-Trichloropropane	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
1,2,4-Trichlorobenzene	ND		170	µg/Kg-dry	1	2/20/2020 01:47 AM
1,2,4-Trimethylbenzene	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
1,2-Dibromo-3-chloropropane	ND		170	µg/Kg-dry	1	2/20/2020 01:47 AM
1,2-Dibromoethane	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
1,2-Dichlorobenzene	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
1,2-Dichloroethane	ND		170	µg/Kg-dry	1	2/20/2020 01:47 AM
1,2-Dichloropropane	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
1,3,5-Trimethylbenzene	ND		170	µg/Kg-dry	1	2/20/2020 01:47 AM
1,3-Dichlorobenzene	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
1,4-Dichlorobenzene	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
2-Butanone	ND		340	µg/Kg-dry	1	2/20/2020 01:47 AM
2-Hexanone	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
2-Methylnaphthalene	ND		170	µg/Kg-dry	1	2/20/2020 01:47 AM
4-Methyl-2-pentanone	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
Acetone	ND		170	µg/Kg-dry	1	2/20/2020 01:47 AM
Acrylonitrile	ND		170	µg/Kg-dry	1	2/20/2020 01:47 AM
Benzene	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
Bromochloromethane	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
Bromodichloromethane	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-3 10-11'
Collection Date: 2/13/2020 04:10 PM

Work Order: 20021006
Lab ID: 20021006-68
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
Bromomethane	ND		170	µg/Kg-dry	1	2/20/2020 01:47 AM
Carbon disulfide	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
Carbon tetrachloride	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
Chlorobenzene	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
Chloroethane	ND		170	µg/Kg-dry	1	2/20/2020 01:47 AM
Chloroform	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
Chloromethane	ND		170	µg/Kg-dry	1	2/20/2020 01:47 AM
cis-1,2-Dichloroethene	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
cis-1,3-Dichloropropene	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
Dibromochloromethane	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
Dibromomethane	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
Dichlorodifluoromethane	ND		170	µg/Kg-dry	1	2/20/2020 01:47 AM
Diethyl ether	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
Ethylbenzene	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
Hexachloroethane	ND		170	µg/Kg-dry	1	2/20/2020 01:47 AM
Isopropylbenzene	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
m,p-Xylene	ND		100	µg/Kg-dry	1	2/20/2020 01:47 AM
Methyl iodide	ND		840	µg/Kg-dry	1	2/20/2020 01:47 AM
Methyl tert-butyl ether	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
Methylene chloride	ND		420	µg/Kg-dry	1	2/20/2020 01:47 AM
Naphthalene	ND		170	µg/Kg-dry	1	2/20/2020 01:47 AM
n-Propylbenzene	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
o-Xylene	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
Styrene	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
Tetrachloroethene	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
Toluene	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
trans-1,2-Dichloroethene	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
trans-1,3-Dichloropropene	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
trans-1,4-Dichloro-2-butene	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
Trichloroethene	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
Trichlorofluoromethane	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
Vinyl acetate	ND		420	µg/Kg-dry	1	2/20/2020 01:47 AM
Vinyl chloride	ND		50	µg/Kg-dry	1	2/20/2020 01:47 AM
Xylenes, Total	ND		150	µg/Kg-dry	1	2/20/2020 01:47 AM
Surr: 1,2-Dichloroethane-d4	*99.9*		*70-130*	*%REC*	1	2/20/2020 01:47 AM
Surr: 4-Bromofluorobenzene	*98.8*		*70-130*	*%REC*	1	2/20/2020 01:47 AM
Surr: Dibromofluoromethane	*83.0*		*70-130*	*%REC*	1	2/20/2020 01:47 AM
Surr: Toluene-d8	*99.9*		*70-130*	*%REC*	1	2/20/2020 01:47 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 15:33 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-3 10-11'
Lab ID: 20021006-68
Collection Date: 2/13/2020 04:10 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**37**		**27**	**mg/Kg-dry**	1	2/20/2020 12:00 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**26**		**0.10**	**% of sample**	1	2/18/2020 01:48 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/17/20 13:08	Analyst: **JZB**
Phosphorus, Total	**420**		**120**	**mg/Kg-dry**	4	2/18/2020 11:41 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 10:11	Analyst: **DNW**
pH	**8.37**		**0.100**	**s.u.**	1	2/17/2020 12:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-3 11-12'
Collection Date: 2/13/2020 04:15 PM

Work Order: 20021006
Lab ID: 20021006-69
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/19/20 13:05		Analyst: **RM**
Aroclor 1016	ND		180	µg/Kg-dry	1	2/19/2020 10:30 PM
Aroclor 1221	ND		180	µg/Kg-dry	1	2/19/2020 10:30 PM
Aroclor 1232	ND		180	µg/Kg-dry	1	2/19/2020 10:30 PM
Aroclor 1242	ND		180	µg/Kg-dry	1	2/19/2020 10:30 PM
Aroclor 1248	ND		180	µg/Kg-dry	1	2/19/2020 10:30 PM
Aroclor 1254	ND		180	µg/Kg-dry	1	2/19/2020 10:30 PM
Aroclor 1260	ND		180	µg/Kg-dry	1	2/19/2020 10:30 PM
Aroclor 1262	ND		180	µg/Kg-dry	1	2/19/2020 10:30 PM
Aroclor 1268	ND		180	µg/Kg-dry	1	2/19/2020 10:30 PM
Surr: Decachlorobiphenyl	*46.3*		*40-140*	*%REC*	1	2/19/2020 10:30 PM
Surr: Tetrachloro-m-xylene	*60.9*		*45-124*	*%REC*	1	2/19/2020 10:30 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 11:48		Analyst: **RSH**
Mercury	**0.025**		**0.023**	**mg/Kg-dry**	1	2/20/2020 03:28 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/19/20 16:56		Analyst: **STP**
Arsenic	**6.7**		**0.57**	**mg/Kg-dry**	1	2/19/2020 07:09 PM
Barium	**100**		**0.57**	**mg/Kg-dry**	1	2/19/2020 07:09 PM
Cadmium	ND		0.23	mg/Kg-dry	1	2/19/2020 07:09 PM
Chromium	**24**		**0.57**	**mg/Kg-dry**	1	2/19/2020 07:09 PM
Copper	**28**		**5.7**	**mg/Kg-dry**	10	2/20/2020 05:07 PM
Lead	**15**		**0.57**	**mg/Kg-dry**	1	2/19/2020 07:09 PM
Nickel	**31**		**0.57**	**mg/Kg-dry**	1	2/19/2020 07:09 PM
Selenium	ND		0.57	mg/Kg-dry	1	2/19/2020 07:09 PM
Silver	ND		0.57	mg/Kg-dry	1	2/19/2020 07:09 PM
Thorium	**5.8**		**0.57**	**mg/Kg-dry**	1	2/19/2020 07:09 PM
Uranium	**1.4**		**0.57**	**mg/Kg-dry**	1	2/19/2020 07:09 PM
Zinc	**57**		**1.1**	**mg/Kg-dry**	1	2/19/2020 07:09 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/18/20 14:37		Analyst: **EEW**
1-Methylnaphthalene	**16**		**5.6**	**µg/Kg-dry**	1	2/19/2020 10:10 PM
2-Chloronaphthalene	ND		5.6	µg/Kg-dry	1	2/19/2020 10:10 PM
2-Methylnaphthalene	**9.5**		**5.6**	**µg/Kg-dry**	1	2/19/2020 10:10 PM
Acenaphthene	**12**		**5.6**	**µg/Kg-dry**	1	2/19/2020 10:10 PM
Acenaphthylene	ND		5.6	µg/Kg-dry	1	2/19/2020 10:10 PM
Anthracene	**6.7**		**5.6**	**µg/Kg-dry**	1	2/19/2020 10:10 PM
Benzo(a)anthracene	ND		5.6	µg/Kg-dry	1	2/19/2020 10:10 PM
Benzo(a)pyrene	ND		5.6	µg/Kg-dry	1	2/19/2020 10:10 PM
Benzo(b)fluoranthene	ND		5.6	µg/Kg-dry	1	2/19/2020 10:10 PM
Benzo(g,h,i)perylene	ND		5.6	µg/Kg-dry	1	2/19/2020 10:10 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-3 11-12' **Lab ID:** 20021006-69
Collection Date: 2/13/2020 04:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.6	µg/Kg-dry	1	2/19/2020 10:10 PM
Chrysene	ND		5.6	µg/Kg-dry	1	2/19/2020 10:10 PM
Dibenzo(a,h)anthracene	ND		5.6	µg/Kg-dry	1	2/19/2020 10:10 PM
Fluoranthene	**11**		**5.6**	**µg/Kg-dry**	1	2/19/2020 10:10 PM
Fluorene	**6.5**		**5.6**	**µg/Kg-dry**	1	2/19/2020 10:10 PM
Indeno(1,2,3-cd)pyrene	ND		5.6	µg/Kg-dry	1	2/19/2020 10:10 PM
Naphthalene	**7.7**		**5.6**	**µg/Kg-dry**	1	2/19/2020 10:10 PM
Phenanthrene	**27**		**5.6**	**µg/Kg-dry**	1	2/19/2020 10:10 PM
Pyrene	**9.3**		**5.6**	**µg/Kg-dry**	1	2/19/2020 10:10 PM
Surr: 2-Fluorobiphenyl	*90.9*		*20-140*	*%REC*	1	2/19/2020 10:10 PM
Surr: 4-Terphenyl-d14	*86.2*		*22-172*	*%REC*	1	2/19/2020 10:10 PM
Surr: Nitrobenzene-d5	*85.1*		*28-140*	*%REC*	1	2/19/2020 10:10 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 14:26		Analyst: **SJB**
1,1,1,2-Tetrachloroethane	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
1,1,1-Trichloroethane	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
1,1,2,2-Tetrachloroethane	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
1,1,2-Trichloroethane	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
1,1,2-Trichlorotrifluoroethane	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
1,1-Dichloroethane	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
1,1-Dichloroethene	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
1,2,3-Trichloropropane	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
1,2,4-Trichlorobenzene	ND		180	µg/Kg-dry	1	2/20/2020 02:08 AM
1,2,4-Trimethylbenzene	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
1,2-Dibromo-3-chloropropane	ND		180	µg/Kg-dry	1	2/20/2020 02:08 AM
1,2-Dibromoethane	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
1,2-Dichlorobenzene	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
1,2-Dichloroethane	ND		180	µg/Kg-dry	1	2/20/2020 02:08 AM
1,2-Dichloropropane	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
1,3,5-Trimethylbenzene	ND		180	µg/Kg-dry	1	2/20/2020 02:08 AM
1,3-Dichlorobenzene	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
1,4-Dichlorobenzene	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
2-Butanone	ND		350	µg/Kg-dry	1	2/20/2020 02:08 AM
2-Hexanone	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
2-Methylnaphthalene	ND		180	µg/Kg-dry	1	2/20/2020 02:08 AM
4-Methyl-2-pentanone	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
Acetone	ND		180	µg/Kg-dry	1	2/20/2020 02:08 AM
Acrylonitrile	ND		180	µg/Kg-dry	1	2/20/2020 02:08 AM
Benzene	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
Bromochloromethane	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
Bromodichloromethane	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-3 11-12' **Lab ID:** 20021006-69
Collection Date: 2/13/2020 04:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
Bromomethane	ND		180	µg/Kg-dry	1	2/20/2020 02:08 AM
Carbon disulfide	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
Carbon tetrachloride	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
Chlorobenzene	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
Chloroethane	ND		180	µg/Kg-dry	1	2/20/2020 02:08 AM
Chloroform	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
Chloromethane	ND		180	µg/Kg-dry	1	2/20/2020 02:08 AM
cis-1,2-Dichloroethene	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
cis-1,3-Dichloropropene	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
Dibromochloromethane	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
Dibromomethane	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
Dichlorodifluoromethane	ND		180	µg/Kg-dry	1	2/20/2020 02:08 AM
Diethyl ether	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
Ethylbenzene	**98**		**53**	**µg/Kg-dry**	1	2/20/2020 02:08 AM
Hexachloroethane	ND		180	µg/Kg-dry	1	2/20/2020 02:08 AM
Isopropylbenzene	**69**		**53**	**µg/Kg-dry**	1	2/20/2020 02:08 AM
m,p-Xylene	ND		110	µg/Kg-dry	1	2/20/2020 02:08 AM
Methyl iodide	ND		880	µg/Kg-dry	1	2/20/2020 02:08 AM
Methyl tert-butyl ether	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
Methylene chloride	ND		440	µg/Kg-dry	1	2/20/2020 02:08 AM
Naphthalene	ND		180	µg/Kg-dry	1	2/20/2020 02:08 AM
n-Propylbenzene	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
o-Xylene	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
Styrene	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
Tetrachloroethene	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
Toluene	**84**		**53**	**µg/Kg-dry**	1	2/20/2020 02:08 AM
trans-1,2-Dichloroethene	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
trans-1,3-Dichloropropene	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
trans-1,4-Dichloro-2-butene	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
Trichloroethene	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
Trichlorofluoromethane	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
Vinyl acetate	ND		440	µg/Kg-dry	1	2/20/2020 02:08 AM
Vinyl chloride	ND		53	µg/Kg-dry	1	2/20/2020 02:08 AM
Xylenes, Total	ND		160	µg/Kg-dry	1	2/20/2020 02:08 AM
Surr: 1,2-Dichloroethane-d4	*100*		*70-130*	*%REC*	1	2/20/2020 02:08 AM
Surr: 4-Bromofluorobenzene	*97.0*		*70-130*	*%REC*	1	2/20/2020 02:08 AM
Surr: Dibromofluoromethane	*81.1*		*70-130*	*%REC*	1	2/20/2020 02:08 AM
Surr: Toluene-d8	*99.8*		*70-130*	*%REC*	1	2/20/2020 02:08 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 15:33 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-3 11-12'
Lab ID: 20021006-69
Collection Date: 2/13/2020 04:15 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**43**		**27**	**mg/Kg-dry**	1	2/20/2020 12:00 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**28**		**0.10**	**% of sample**	1	2/18/2020 01:48 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/17/20 13:08	Analyst: **JZB**
Phosphorus, Total	**350**		**150**	**mg/Kg-dry**	4	2/18/2020 11:42 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 10:11	Analyst: **DNW**
pH	**8.27**		**0.100**	**s.u.**	1	2/17/2020 12:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-3 12-13'
Lab ID: 20021006-70
Collection Date: 2/13/2020 04:20 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/19/20 13:05		Analyst: **RM**
Aroclor 1016	ND		240	µg/Kg-dry	1	2/19/2020 10:46 PM
Aroclor 1221	ND		240	µg/Kg-dry	1	2/19/2020 10:46 PM
Aroclor 1232	ND		240	µg/Kg-dry	1	2/19/2020 10:46 PM
Aroclor 1242	ND		240	µg/Kg-dry	1	2/19/2020 10:46 PM
Aroclor 1248	ND		240	µg/Kg-dry	1	2/19/2020 10:46 PM
Aroclor 1254	ND		240	µg/Kg-dry	1	2/19/2020 10:46 PM
Aroclor 1260	ND		240	µg/Kg-dry	1	2/19/2020 10:46 PM
Aroclor 1262	ND		240	µg/Kg-dry	1	2/19/2020 10:46 PM
Aroclor 1268	ND		240	µg/Kg-dry	1	2/19/2020 10:46 PM
Surr: Decachlorobiphenyl	*44.0*		*40-140*	*%REC*	1	2/19/2020 10:46 PM
Surr: Tetrachloro-m-xylene	*60.1*		*45-124*	*%REC*	1	2/19/2020 10:46 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 11:48		Analyst: **RSH**
Mercury	ND		0.026	mg/Kg-dry	1	2/20/2020 03:36 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/19/20 16:56		Analyst: **STP**
Arsenic	**7.8**		**0.50**	**mg/Kg-dry**	1	2/19/2020 07:11 PM
Barium	**100**		**0.50**	**mg/Kg-dry**	1	2/19/2020 07:11 PM
Cadmium	ND		0.20	mg/Kg-dry	1	2/19/2020 07:11 PM
Chromium	**23**		**0.50**	**mg/Kg-dry**	1	2/19/2020 07:11 PM
Copper	**31**		**5.0**	**mg/Kg-dry**	10	2/20/2020 05:09 PM
Lead	**18**		**0.50**	**mg/Kg-dry**	1	2/19/2020 07:11 PM
Nickel	**32**		**0.50**	**mg/Kg-dry**	1	2/19/2020 07:11 PM
Selenium	ND		0.50	mg/Kg-dry	1	2/19/2020 07:11 PM
Silver	ND		0.50	mg/Kg-dry	1	2/19/2020 07:11 PM
Thorium	**6.0**		**0.50**	**mg/Kg-dry**	1	2/19/2020 07:11 PM
Uranium	**1.8**		**0.50**	**mg/Kg-dry**	1	2/19/2020 07:11 PM
Zinc	**57**		**1.0**	**mg/Kg-dry**	1	2/19/2020 07:11 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/18/20 14:37		Analyst: **EEW**
1-Methylnaphthalene	**23**		**5.6**	**µg/Kg-dry**	1	2/19/2020 10:26 PM
2-Chloronaphthalene	ND		5.6	µg/Kg-dry	1	2/19/2020 10:26 PM
2-Methylnaphthalene	**13**		**5.6**	**µg/Kg-dry**	1	2/19/2020 10:26 PM
Acenaphthene	**18**		**5.6**	**µg/Kg-dry**	1	2/19/2020 10:26 PM
Acenaphthylene	ND		5.6	µg/Kg-dry	1	2/19/2020 10:26 PM
Anthracene	**9.3**		**5.6**	**µg/Kg-dry**	1	2/19/2020 10:26 PM
Benzo(a)anthracene	ND		5.6	µg/Kg-dry	1	2/19/2020 10:26 PM
Benzo(a)pyrene	ND		5.6	µg/Kg-dry	1	2/19/2020 10:26 PM
Benzo(b)fluoranthene	ND		5.6	µg/Kg-dry	1	2/19/2020 10:26 PM
Benzo(g,h,i)perylene	ND		5.6	µg/Kg-dry	1	2/19/2020 10:26 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-3 12-13'
Lab ID: 20021006-70
Collection Date: 2/13/2020 04:20 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.6	µg/Kg-dry	1	2/19/2020 10:26 PM
Chrysene	ND		5.6	µg/Kg-dry	1	2/19/2020 10:26 PM
Dibenzo(a,h)anthracene	ND		5.6	µg/Kg-dry	1	2/19/2020 10:26 PM
Fluoranthene	**15**		**5.6**	**µg/Kg-dry**	1	2/19/2020 10:26 PM
Fluorene	**9.9**		**5.6**	**µg/Kg-dry**	1	2/19/2020 10:26 PM
Indeno(1,2,3-cd)pyrene	ND		5.6	µg/Kg-dry	1	2/19/2020 10:26 PM
Naphthalene	**33**		**5.6**	**µg/Kg-dry**	1	2/19/2020 10:26 PM
Phenanthrene	**39**		**5.6**	**µg/Kg-dry**	1	2/19/2020 10:26 PM
Pyrene	**13**		**5.6**	**µg/Kg-dry**	1	2/19/2020 10:26 PM
Surr: 2-Fluorobiphenyl	*89.0*		*20-140*	*%REC*	1	2/19/2020 10:26 PM
Surr: 4-Terphenyl-d14	*85.5*		*22-172*	*%REC*	1	2/19/2020 10:26 PM
Surr: Nitrobenzene-d5	*85.5*		*28-140*	*%REC*	1	2/19/2020 10:26 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 14:26		Analyst: **SJB**
1,1,1,2-Tetrachloroethane	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
1,1,1-Trichloroethane	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
1,1,2,2-Tetrachloroethane	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
1,1,2-Trichloroethane	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
1,1,2-Trichlorotrifluoroethane	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
1,1-Dichloroethane	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
1,1-Dichloroethene	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
1,2,3-Trichloropropane	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
1,2,4-Trichlorobenzene	ND		180	µg/Kg-dry	1	2/20/2020 02:29 AM
1,2,4-Trimethylbenzene	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
1,2-Dibromo-3-chloropropane	ND		180	µg/Kg-dry	1	2/20/2020 02:29 AM
1,2-Dibromoethane	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
1,2-Dichlorobenzene	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
1,2-Dichloroethane	ND		180	µg/Kg-dry	1	2/20/2020 02:29 AM
1,2-Dichloropropane	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
1,3,5-Trimethylbenzene	ND		180	µg/Kg-dry	1	2/20/2020 02:29 AM
1,3-Dichlorobenzene	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
1,4-Dichlorobenzene	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
2-Butanone	ND		360	µg/Kg-dry	1	2/20/2020 02:29 AM
2-Hexanone	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
2-Methylnaphthalene	ND		180	µg/Kg-dry	1	2/20/2020 02:29 AM
4-Methyl-2-pentanone	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
Acetone	ND		180	µg/Kg-dry	1	2/20/2020 02:29 AM
Acrylonitrile	ND		180	µg/Kg-dry	1	2/20/2020 02:29 AM
Benzene	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
Bromochloromethane	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
Bromodichloromethane	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-3 12-13' **Lab ID:** 20021006-70
Collection Date: 2/13/2020 04:20 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
Bromomethane	ND		180	µg/Kg-dry	1	2/20/2020 02:29 AM
Carbon disulfide	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
Carbon tetrachloride	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
Chlorobenzene	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
Chloroethane	ND		180	µg/Kg-dry	1	2/20/2020 02:29 AM
Chloroform	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
Chloromethane	ND		180	µg/Kg-dry	1	2/20/2020 02:29 AM
cis-1,2-Dichloroethene	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
cis-1,3-Dichloropropene	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
Dibromochloromethane	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
Dibromomethane	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
Dichlorodifluoromethane	ND		180	µg/Kg-dry	1	2/20/2020 02:29 AM
Diethyl ether	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
Ethylbenzene	**210**		**54**	**µg/Kg-dry**	1	2/20/2020 02:29 AM
Hexachloroethane	ND		180	µg/Kg-dry	1	2/20/2020 02:29 AM
Isopropylbenzene	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
m,p-Xylene	ND		110	µg/Kg-dry	1	2/20/2020 02:29 AM
Methyl iodide	ND		900	µg/Kg-dry	1	2/20/2020 02:29 AM
Methyl tert-butyl ether	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
Methylene chloride	ND		450	µg/Kg-dry	1	2/20/2020 02:29 AM
Naphthalene	ND		180	µg/Kg-dry	1	2/20/2020 02:29 AM
n-Propylbenzene	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
o-Xylene	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
Styrene	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
Tetrachloroethene	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
Toluene	**250**		**54**	**µg/Kg-dry**	1	2/20/2020 02:29 AM
trans-1,2-Dichloroethene	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
trans-1,3-Dichloropropene	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
trans-1,4-Dichloro-2-butene	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
Trichloroethene	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
Trichlorofluoromethane	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
Vinyl acetate	ND		450	µg/Kg-dry	1	2/20/2020 02:29 AM
Vinyl chloride	ND		54	µg/Kg-dry	1	2/20/2020 02:29 AM
Xylenes, Total	ND		160	µg/Kg-dry	1	2/20/2020 02:29 AM
Surr: 1,2-Dichloroethane-d4	*102*		*70-130*	*%REC*	1	2/20/2020 02:29 AM
Surr: 4-Bromofluorobenzene	*97.5*		*70-130*	*%REC*	1	2/20/2020 02:29 AM
Surr: Dibromofluoromethane	*80.4*		*70-130*	*%REC*	1	2/20/2020 02:29 AM
Surr: Toluene-d8	*101*		*70-130*	*%REC*	1	2/20/2020 02:29 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 15:33 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-3 12-13'
Collection Date: 2/13/2020 04:20 PM

Work Order: 20021006
Lab ID: 20021006-70
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**28**		**27**	**mg/Kg-dry**	1	2/20/2020 12:00 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**27**		**0.10**	**% of sample**	1	2/18/2020 01:48 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/17/20 13:08	Analyst: **JZB**
Phosphorus, Total	**360**		**130**	**mg/Kg-dry**	4	2/18/2020 11:43 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 11:25	Analyst: **DNW**
pH	**8.14**		**0.100**	**s.u.**	1	2/18/2020 08:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-3 13-14'
Lab ID: 20021006-71
Collection Date: 2/13/2020 04:25 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/19/20 13:05		Analyst: **RM**
Aroclor 1016	ND		240	µg/Kg-dry	1	2/19/2020 11:01 PM
Aroclor 1221	ND		240	µg/Kg-dry	1	2/19/2020 11:01 PM
Aroclor 1232	ND		240	µg/Kg-dry	1	2/19/2020 11:01 PM
Aroclor 1242	ND		240	µg/Kg-dry	1	2/19/2020 11:01 PM
Aroclor 1248	ND		240	µg/Kg-dry	1	2/19/2020 11:01 PM
Aroclor 1254	ND		240	µg/Kg-dry	1	2/19/2020 11:01 PM
Aroclor 1260	ND		240	µg/Kg-dry	1	2/19/2020 11:01 PM
Aroclor 1262	ND		240	µg/Kg-dry	1	2/19/2020 11:01 PM
Aroclor 1268	ND		240	µg/Kg-dry	1	2/19/2020 11:01 PM
Surr: Decachlorobiphenyl	*80.3*		*40-140*	*%REC*	1	2/19/2020 11:01 PM
Surr: Tetrachloro-m-xylene	*82.6*		*45-124*	*%REC*	1	2/19/2020 11:01 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 11:48		Analyst: **RSH**
Mercury	ND		0.021	mg/Kg-dry	1	2/20/2020 03:38 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/19/20 16:56		Analyst: **STP**
Arsenic	**6.8**		**0.40**	**mg/Kg-dry**	1	2/19/2020 07:13 PM
Barium	**81**		**0.40**	**mg/Kg-dry**	1	2/19/2020 07:13 PM
Cadmium	ND		0.16	mg/Kg-dry	1	2/19/2020 07:13 PM
Chromium	**20**		**0.40**	**mg/Kg-dry**	1	2/19/2020 07:13 PM
Copper	**23**		**4.0**	**mg/Kg-dry**	10	2/20/2020 05:10 PM
Lead	**14**		**0.40**	**mg/Kg-dry**	1	2/19/2020 07:13 PM
Nickel	**27**		**0.40**	**mg/Kg-dry**	1	2/19/2020 07:13 PM
Selenium	ND		0.40	mg/Kg-dry	1	2/19/2020 07:13 PM
Silver	ND		0.40	mg/Kg-dry	1	2/19/2020 07:13 PM
Thorium	**5.1**		**0.40**	**mg/Kg-dry**	1	2/19/2020 07:13 PM
Uranium	**1.4**		**0.40**	**mg/Kg-dry**	1	2/19/2020 07:13 PM
Zinc	**50**		**0.81**	**mg/Kg-dry**	1	2/19/2020 07:13 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/18/20 14:37		Analyst: **EEW**
1-Methylnaphthalene	**20**		**5.3**	**µg/Kg-dry**	1	2/19/2020 10:41 PM
2-Chloronaphthalene	ND		5.3	µg/Kg-dry	1	2/19/2020 10:41 PM
2-Methylnaphthalene	**8.0**		**5.3**	**µg/Kg-dry**	1	2/19/2020 10:41 PM
Acenaphthene	**16**		**5.3**	**µg/Kg-dry**	1	2/19/2020 10:41 PM
Acenaphthylene	ND		5.3	µg/Kg-dry	1	2/19/2020 10:41 PM
Anthracene	**6.3**		**5.3**	**µg/Kg-dry**	1	2/19/2020 10:41 PM
Benzo(a)anthracene	ND		5.3	µg/Kg-dry	1	2/19/2020 10:41 PM
Benzo(a)pyrene	ND		5.3	µg/Kg-dry	1	2/19/2020 10:41 PM
Benzo(b)fluoranthene	ND		5.3	µg/Kg-dry	1	2/19/2020 10:41 PM
Benzo(g,h,i)perylene	ND		5.3	µg/Kg-dry	1	2/19/2020 10:41 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-3 13-14' **Lab ID:** 20021006-71
Collection Date: 2/13/2020 04:25 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.3	µg/Kg-dry	1	2/19/2020 10:41 PM
Chrysene	ND		5.3	µg/Kg-dry	1	2/19/2020 10:41 PM
Dibenzo(a,h)anthracene	ND		5.3	µg/Kg-dry	1	2/19/2020 10:41 PM
Fluoranthene	**12**		**5.3**	**µg/Kg-dry**	1	2/19/2020 10:41 PM
Fluorene	**6.8**		**5.3**	**µg/Kg-dry**	1	2/19/2020 10:41 PM
Indeno(1,2,3-cd)pyrene	ND		5.3	µg/Kg-dry	1	2/19/2020 10:41 PM
Naphthalene	**11**		**5.3**	**µg/Kg-dry**	1	2/19/2020 10:41 PM
Phenanthrene	**29**		**5.3**	**µg/Kg-dry**	1	2/19/2020 10:41 PM
Pyrene	**9.1**		**5.3**	**µg/Kg-dry**	1	2/19/2020 10:41 PM
Surr: 2-Fluorobiphenyl	*90.4*		*20-140*	*%REC*	1	2/19/2020 10:41 PM
Surr: 4-Terphenyl-d14	*89.6*		*22-172*	*%REC*	1	2/19/2020 10:41 PM
Surr: Nitrobenzene-d5	*84.4*		*28-140*	*%REC*	1	2/19/2020 10:41 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 14:26		Analyst: **SJB**
1,1,1,2-Tetrachloroethane	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
1,1,1-Trichloroethane	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
1,1,2,2-Tetrachloroethane	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
1,1,2-Trichloroethane	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
1,1,2-Trichlorotrifluoroethane	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
1,1-Dichloroethane	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
1,1-Dichloroethene	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
1,2,3-Trichloropropane	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
1,2,4-Trichlorobenzene	ND		140	µg/Kg-dry	1	2/20/2020 02:50 AM
1,2,4-Trimethylbenzene	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
1,2-Dibromo-3-chloropropane	ND		140	µg/Kg-dry	1	2/20/2020 02:50 AM
1,2-Dibromoethane	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
1,2-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
1,2-Dichloroethane	ND		140	µg/Kg-dry	1	2/20/2020 02:50 AM
1,2-Dichloropropane	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
1,3,5-Trimethylbenzene	ND		140	µg/Kg-dry	1	2/20/2020 02:50 AM
1,3-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
1,4-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
2-Butanone	ND		290	µg/Kg-dry	1	2/20/2020 02:50 AM
2-Hexanone	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
2-Methylnaphthalene	ND		140	µg/Kg-dry	1	2/20/2020 02:50 AM
4-Methyl-2-pentanone	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
Acetone	ND		140	µg/Kg-dry	1	2/20/2020 02:50 AM
Acrylonitrile	ND		140	µg/Kg-dry	1	2/20/2020 02:50 AM
Benzene	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
Bromochloromethane	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
Bromodichloromethane	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-3 13-14'
Collection Date: 2/13/2020 04:25 PM

Work Order: 20021006
Lab ID: 20021006-71
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
Bromomethane	ND		140	µg/Kg-dry	1	2/20/2020 02:50 AM
Carbon disulfide	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
Carbon tetrachloride	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
Chlorobenzene	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
Chloroethane	ND		140	µg/Kg-dry	1	2/20/2020 02:50 AM
Chloroform	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
Chloromethane	ND		140	µg/Kg-dry	1	2/20/2020 02:50 AM
cis-1,2-Dichloroethene	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
cis-1,3-Dichloropropene	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
Dibromochloromethane	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
Dibromomethane	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
Dichlorodifluoromethane	ND		140	µg/Kg-dry	1	2/20/2020 02:50 AM
Diethyl ether	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
Ethylbenzene	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
Hexachloroethane	ND		140	µg/Kg-dry	1	2/20/2020 02:50 AM
Isopropylbenzene	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
m,p-Xylene	ND		86	µg/Kg-dry	1	2/20/2020 02:50 AM
Methyl iodide	ND		720	µg/Kg-dry	1	2/20/2020 02:50 AM
Methyl tert-butyl ether	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
Methylene chloride	ND		360	µg/Kg-dry	1	2/20/2020 02:50 AM
Naphthalene	ND		140	µg/Kg-dry	1	2/20/2020 02:50 AM
n-Propylbenzene	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
o-Xylene	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
Styrene	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
Tetrachloroethene	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
Toluene	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
trans-1,2-Dichloroethene	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
trans-1,3-Dichloropropene	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
trans-1,4-Dichloro-2-butene	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
Trichloroethene	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
Trichlorofluoromethane	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
Vinyl acetate	ND		360	µg/Kg-dry	1	2/20/2020 02:50 AM
Vinyl chloride	ND		43	µg/Kg-dry	1	2/20/2020 02:50 AM
Xylenes, Total	ND		130	µg/Kg-dry	1	2/20/2020 02:50 AM
Surr: 1,2-Dichloroethane-d4	*102*		*70-130*	*%REC*	1	2/20/2020 02:50 AM
Surr: 4-Bromofluorobenzene	*98.6*		*70-130*	*%REC*	1	2/20/2020 02:50 AM
Surr: Dibromofluoromethane	*82.7*		*70-130*	*%REC*	1	2/20/2020 02:50 AM
Surr: Toluene-d8	*101*		*70-130*	*%REC*	1	2/20/2020 02:50 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 15:33 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-3 13-14'
Lab ID: 20021006-71
Collection Date: 2/13/2020 04:25 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**35**		**26**	**mg/Kg-dry**	1	2/20/2020 12:00 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**22**		**0.10**	**% of sample**	1	2/18/2020 01:48 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/17/20 13:08	Analyst: **JZB**
Phosphorus, Total	**310**		**110**	**mg/Kg-dry**	4	2/18/2020 11:45 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 11:25	Analyst: **DNW**
pH	**8.03**		**0.100**	**s.u.**	1	2/18/2020 08:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-3 14-15'
Lab ID: 20021006-72
Collection Date: 2/13/2020 04:30 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/19/20 13:05		Analyst: **RM**
Aroclor 1016	ND		88	µg/Kg-dry	1	2/19/2020 11:47 PM
Aroclor 1221	ND		88	µg/Kg-dry	1	2/19/2020 11:47 PM
Aroclor 1232	ND		88	µg/Kg-dry	1	2/19/2020 11:47 PM
Aroclor 1242	ND		88	µg/Kg-dry	1	2/19/2020 11:47 PM
Aroclor 1248	ND		88	µg/Kg-dry	1	2/19/2020 11:47 PM
Aroclor 1254	ND		88	µg/Kg-dry	1	2/19/2020 11:47 PM
Aroclor 1260	ND		88	µg/Kg-dry	1	2/19/2020 11:47 PM
Aroclor 1262	ND		88	µg/Kg-dry	1	2/19/2020 11:47 PM
Aroclor 1268	ND		88	µg/Kg-dry	1	2/19/2020 11:47 PM
Surr: Decachlorobiphenyl	*43.0*		*40-140*	*%REC*	1	2/19/2020 11:47 PM
Surr: Tetrachloro-m-xylene	*56.9*		*45-124*	*%REC*	1	2/19/2020 11:47 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 11:48		Analyst: **RSH**
Mercury	ND		0.020	mg/Kg-dry	1	2/20/2020 03:40 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/19/20 16:56		Analyst: **STP**
Arsenic	**5.2**		**0.48**	**mg/Kg-dry**	1	2/19/2020 07:49 PM
Barium	**80**		**0.48**	**mg/Kg-dry**	1	2/19/2020 07:49 PM
Cadmium	ND		0.19	mg/Kg-dry	1	2/19/2020 07:49 PM
Chromium	**17**		**0.48**	**mg/Kg-dry**	1	2/19/2020 07:49 PM
Copper	**16**		**0.48**	**mg/Kg-dry**	1	2/19/2020 07:49 PM
Lead	**11**		**0.48**	**mg/Kg-dry**	1	2/19/2020 07:49 PM
Nickel	**23**		**0.48**	**mg/Kg-dry**	1	2/19/2020 07:49 PM
Selenium	ND		0.48	mg/Kg-dry	1	2/20/2020 05:29 PM
Silver	ND		0.48	mg/Kg-dry	1	2/19/2020 07:49 PM
Thorium	**4.9**		**0.48**	**mg/Kg-dry**	1	2/19/2020 07:49 PM
Uranium	**1.3**		**0.48**	**mg/Kg-dry**	1	2/19/2020 07:49 PM
Zinc	**42**		**0.97**	**mg/Kg-dry**	1	2/19/2020 07:49 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/18/20 14:37		Analyst: **EEW**
1-Methylnaphthalene	ND		19	µg/Kg-dry	1	2/20/2020 09:25 PM
2-Chloronaphthalene	ND		19	µg/Kg-dry	1	2/20/2020 09:25 PM
2-Methylnaphthalene	ND		19	µg/Kg-dry	1	2/20/2020 09:25 PM
Acenaphthene	ND		19	µg/Kg-dry	1	2/20/2020 09:25 PM
Acenaphthylene	ND		19	µg/Kg-dry	1	2/20/2020 09:25 PM
Anthracene	ND		19	µg/Kg-dry	1	2/20/2020 09:25 PM
Benzo(a)anthracene	ND		19	µg/Kg-dry	1	2/20/2020 09:25 PM
Benzo(a)pyrene	ND		19	µg/Kg-dry	1	2/20/2020 09:25 PM
Benzo(b)fluoranthene	ND		19	µg/Kg-dry	1	2/20/2020 09:25 PM
Benzo(g,h,i)perylene	ND		19	µg/Kg-dry	1	2/20/2020 09:25 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-3 14-15' **Lab ID:** 20021006-72
Collection Date: 2/13/2020 04:30 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		19	µg/Kg-dry	1	2/20/2020 09:25 PM
Chrysene	ND		19	µg/Kg-dry	1	2/20/2020 09:25 PM
Dibenzo(a,h)anthracene	ND		19	µg/Kg-dry	1	2/20/2020 09:25 PM
Fluoranthene	**22**		**19**	**µg/Kg-dry**	1	2/20/2020 09:25 PM
Fluorene	ND		19	µg/Kg-dry	1	2/20/2020 09:25 PM
Indeno(1,2,3-cd)pyrene	ND		19	µg/Kg-dry	1	2/20/2020 09:25 PM
Naphthalene	ND		19	µg/Kg-dry	1	2/20/2020 09:25 PM
Phenanthrene	**49**		**19**	**µg/Kg-dry**	1	2/20/2020 09:25 PM
Pyrene	ND		19	µg/Kg-dry	1	2/20/2020 09:25 PM
Surr: 2-Fluorobiphenyl	*96.1*		*20-140*	*%REC*	1	2/20/2020 09:25 PM
Surr: 4-Terphenyl-d14	*102*		*22-172*	*%REC*	1	2/20/2020 09:25 PM
Surr: Nitrobenzene-d5	*112*		*28-140*	*%REC*	1	2/20/2020 09:25 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 14:26		Analyst: **SJB**
1,1,1,2-Tetrachloroethane	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
1,1,1-Trichloroethane	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
1,1,2,2-Tetrachloroethane	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
1,1,2-Trichloroethane	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
1,1,2-Trichlorotrifluoroethane	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
1,1-Dichloroethane	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
1,1-Dichloroethene	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
1,2,3-Trichloropropane	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
1,2,4-Trichlorobenzene	ND		170	µg/Kg-dry	1	2/20/2020 03:11 AM
1,2,4-Trimethylbenzene	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
1,2-Dibromo-3-chloropropane	ND		170	µg/Kg-dry	1	2/20/2020 03:11 AM
1,2-Dibromoethane	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
1,2-Dichlorobenzene	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
1,2-Dichloroethane	ND		170	µg/Kg-dry	1	2/20/2020 03:11 AM
1,2-Dichloropropane	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
1,3,5-Trimethylbenzene	ND		170	µg/Kg-dry	1	2/20/2020 03:11 AM
1,3-Dichlorobenzene	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
1,4-Dichlorobenzene	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
2-Butanone	ND		340	µg/Kg-dry	1	2/20/2020 03:11 AM
2-Hexanone	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
2-Methylnaphthalene	ND		170	µg/Kg-dry	1	2/20/2020 03:11 AM
4-Methyl-2-pentanone	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
Acetone	ND		170	µg/Kg-dry	1	2/20/2020 03:11 AM
Acrylonitrile	ND		170	µg/Kg-dry	1	2/20/2020 03:11 AM
Benzene	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
Bromochloromethane	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
Bromodichloromethane	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-3 14-15'
Collection Date: 2/13/2020 04:30 PM

Work Order: 20021006
Lab ID: 20021006-72
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
Bromomethane	ND		170	µg/Kg-dry	1	2/20/2020 03:11 AM
Carbon disulfide	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
Carbon tetrachloride	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
Chlorobenzene	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
Chloroethane	ND		170	µg/Kg-dry	1	2/20/2020 03:11 AM
Chloroform	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
Chloromethane	ND		170	µg/Kg-dry	1	2/20/2020 03:11 AM
cis-1,2-Dichloroethene	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
cis-1,3-Dichloropropene	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
Dibromochloromethane	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
Dibromomethane	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
Dichlorodifluoromethane	ND		170	µg/Kg-dry	1	2/20/2020 03:11 AM
Diethyl ether	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
Ethylbenzene	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
Hexachloroethane	ND		170	µg/Kg-dry	1	2/20/2020 03:11 AM
Isopropylbenzene	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
m,p-Xylene	ND		100	µg/Kg-dry	1	2/20/2020 03:11 AM
Methyl iodide	ND		860	µg/Kg-dry	1	2/20/2020 03:11 AM
Methyl tert-butyl ether	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
Methylene chloride	ND		430	µg/Kg-dry	1	2/20/2020 03:11 AM
Naphthalene	ND		170	µg/Kg-dry	1	2/20/2020 03:11 AM
n-Propylbenzene	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
o-Xylene	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
Styrene	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
Tetrachloroethene	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
Toluene	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
trans-1,2-Dichloroethene	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
trans-1,3-Dichloropropene	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
trans-1,4-Dichloro-2-butene	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
Trichloroethene	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
Trichlorofluoromethane	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
Vinyl acetate	ND		430	µg/Kg-dry	1	2/20/2020 03:11 AM
Vinyl chloride	ND		52	µg/Kg-dry	1	2/20/2020 03:11 AM
Xylenes, Total	ND		150	µg/Kg-dry	1	2/20/2020 03:11 AM
Surr: 1,2-Dichloroethane-d4	*99.6*		*70-130*	*%REC*	1	2/20/2020 03:11 AM
Surr: 4-Bromofluorobenzene	*96.4*		*70-130*	*%REC*	1	2/20/2020 03:11 AM
Surr: Dibromofluoromethane	*83.7*		*70-130*	*%REC*	1	2/20/2020 03:11 AM
Surr: Toluene-d8	*100*		*70-130*	*%REC*	1	2/20/2020 03:11 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 15:33 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-3 14-15'
Lab ID: 20021006-72
Collection Date: 2/13/2020 04:30 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**30**		**26**	**mg/Kg-dry**	1	2/20/2020 12:00 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**24**		**0.10**	**% of sample**	1	2/18/2020 01:48 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/17/20 13:08	Analyst: **JZB**
Phosphorus, Total	**390**		**120**	**mg/Kg-dry**	4	2/18/2020 11:46 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 11:25	Analyst: **DNW**
pH	**8.17**		**0.100**	**s.u.**	1	2/18/2020 08:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-4 2-3'
Collection Date: 2/13/2020 03:10 PM

Work Order: 20021006
Lab ID: 20021006-73
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/19/20 13:05		Analyst: **RM**
Aroclor 1016	ND		330	µg/Kg-dry	1	2/20/2020 12:03 AM
Aroclor 1221	ND		330	µg/Kg-dry	1	2/20/2020 12:03 AM
Aroclor 1232	ND		330	µg/Kg-dry	1	2/20/2020 12:03 AM
Aroclor 1242	ND		330	µg/Kg-dry	1	2/20/2020 12:03 AM
Aroclor 1248	ND		330	µg/Kg-dry	1	2/20/2020 12:03 AM
Aroclor 1254	ND		330	µg/Kg-dry	1	2/20/2020 12:03 AM
Aroclor 1260	ND		330	µg/Kg-dry	1	2/20/2020 12:03 AM
Aroclor 1262	ND		330	µg/Kg-dry	1	2/20/2020 12:03 AM
Aroclor 1268	ND		330	µg/Kg-dry	1	2/20/2020 12:03 AM
Surr: Decachlorobiphenyl	*83.9*		*40-140*	*%REC*	1	2/20/2020 12:03 AM
Surr: Tetrachloro-m-xylene	*79.8*		*45-124*	*%REC*	1	2/20/2020 12:03 AM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 11:48		Analyst: **RSH**
Mercury	**0.67**		**0.045**	**mg/Kg-dry**	2	2/21/2020 02:43 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/19/20 16:56		Analyst: **STP**
Arsenic	**23**		**0.52**	**mg/Kg-dry**	1	2/19/2020 07:51 PM
Barium	**80**		**0.52**	**mg/Kg-dry**	1	2/19/2020 07:51 PM
Cadmium	**200**		**21**	**mg/Kg-dry**	100	2/20/2020 05:15 PM
Chromium	**91**		**0.52**	**mg/Kg-dry**	1	2/19/2020 07:51 PM
Copper	**4,800**		**520**	**mg/Kg-dry**	1000	2/20/2020 05:12 PM
Lead	**380**		**52**	**mg/Kg-dry**	100	2/20/2020 05:15 PM
Nickel	**15**		**0.52**	**mg/Kg-dry**	1	2/19/2020 07:51 PM
Selenium	**1.3**		**0.52**	**mg/Kg-dry**	1	2/20/2020 05:31 PM
Silver	**2.1**		**0.52**	**mg/Kg-dry**	1	2/19/2020 07:51 PM
Thorium	**2.4**		**0.52**	**mg/Kg-dry**	1	2/19/2020 07:51 PM
Uranium	**0.91**		**0.52**	**mg/Kg-dry**	1	2/19/2020 07:51 PM
Zinc	**5,300**		**1,000**	**mg/Kg-dry**	1000	2/20/2020 05:12 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/18/20 14:37		Analyst: **EEW**
1-Methylnaphthalene	**600**		**15**	**µg/Kg-dry**	1	2/20/2020 09:40 PM
2-Chloronaphthalene	ND		15	µg/Kg-dry	1	2/20/2020 09:40 PM
2-Methylnaphthalene	**400**		**15**	**µg/Kg-dry**	1	2/20/2020 09:40 PM
Acenaphthene	**1,600**		**15**	**µg/Kg-dry**	1	2/20/2020 09:40 PM
Acenaphthylene	**82**		**15**	**µg/Kg-dry**	1	2/20/2020 09:40 PM
Anthracene	**1,200**		**15**	**µg/Kg-dry**	1	2/20/2020 09:40 PM
Benzo(a)anthracene	**1,200**		**15**	**µg/Kg-dry**	1	2/20/2020 09:40 PM
Benzo(a)pyrene	**780**		**15**	**µg/Kg-dry**	1	2/20/2020 09:40 PM
Benzo(b)fluoranthene	**730**		**15**	**µg/Kg-dry**	1	2/20/2020 09:40 PM
Benzo(g,h,i)perylene	**320**		**15**	**µg/Kg-dry**	1	2/20/2020 09:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-4 2-3' **Lab ID:** 20021006-73
Collection Date: 2/13/2020 03:10 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**210**		**15**	**µg/Kg-dry**	1	2/20/2020 09:40 PM
Chrysene	**1,000**		**15**	**µg/Kg-dry**	1	2/20/2020 09:40 PM
Dibenzo(a,h)anthracene	**130**		**15**	**µg/Kg-dry**	1	2/20/2020 09:40 PM
Fluoranthene	**2,300**		**15**	**µg/Kg-dry**	1	2/20/2020 09:40 PM
Fluorene	**890**		**15**	**µg/Kg-dry**	1	2/20/2020 09:40 PM
Indeno(1,2,3-cd)pyrene	**350**		**15**	**µg/Kg-dry**	1	2/20/2020 09:40 PM
Naphthalene	**300**		**15**	**µg/Kg-dry**	1	2/20/2020 09:40 PM
Phenanthrene	**3,300**		**15**	**µg/Kg-dry**	1	2/20/2020 09:40 PM
Pyrene	**2,400**		**15**	**µg/Kg-dry**	1	2/20/2020 09:40 PM
Surr: 2-Fluorobiphenyl	*95.0*		*20-140*	*%REC*	1	2/20/2020 09:40 PM
Surr: 4-Terphenyl-d14	*87.0*		*22-172*	*%REC*	1	2/20/2020 09:40 PM
Surr: Nitrobenzene-d5	*111*		*28-140*	*%REC*	1	2/20/2020 09:40 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 14:26		Analyst: **SJB**
1,1,1,2-Tetrachloroethane	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
1,1,1-Trichloroethane	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
1,1,2,2-Tetrachloroethane	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
1,1,2-Trichloroethane	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
1,1,2-Trichlorotrifluoroethane	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
1,1-Dichloroethane	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
1,1-Dichloroethene	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
1,2,3-Trichloropropane	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
1,2,4-Trichlorobenzene	ND		160	µg/Kg-dry	1	2/20/2020 03:32 AM
1,2,4-Trimethylbenzene	**69**		**49**	**µg/Kg-dry**	1	2/20/2020 03:32 AM
1,2-Dibromo-3-chloropropane	ND		160	µg/Kg-dry	1	2/20/2020 03:32 AM
1,2-Dibromoethane	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
1,2-Dichlorobenzene	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
1,2-Dichloroethane	ND		160	µg/Kg-dry	1	2/20/2020 03:32 AM
1,2-Dichloropropane	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
1,3,5-Trimethylbenzene	ND		160	µg/Kg-dry	1	2/20/2020 03:32 AM
1,3-Dichlorobenzene	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
1,4-Dichlorobenzene	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
2-Butanone	ND		330	µg/Kg-dry	1	2/20/2020 03:32 AM
2-Hexanone	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
2-Methylnaphthalene	**680**		**160**	**µg/Kg-dry**	1	2/20/2020 03:32 AM
4-Methyl-2-pentanone	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
Acetone	ND		160	µg/Kg-dry	1	2/20/2020 03:32 AM
Acrylonitrile	ND		160	µg/Kg-dry	1	2/20/2020 03:32 AM
Benzene	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
Bromochloromethane	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
Bromodichloromethane	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-4 2-3'
Collection Date: 2/13/2020 03:10 PM

Work Order: 20021006
Lab ID: 20021006-73
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
Bromomethane	ND		160	µg/Kg-dry	1	2/20/2020 03:32 AM
Carbon disulfide	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
Carbon tetrachloride	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
Chlorobenzene	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
Chloroethane	ND		160	µg/Kg-dry	1	2/20/2020 03:32 AM
Chloroform	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
Chloromethane	ND		160	µg/Kg-dry	1	2/20/2020 03:32 AM
cis-1,2-Dichloroethene	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
cis-1,3-Dichloropropene	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
Dibromochloromethane	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
Dibromomethane	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
Dichlorodifluoromethane	ND		160	µg/Kg-dry	1	2/20/2020 03:32 AM
Diethyl ether	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
Ethylbenzene	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
Hexachloroethane	ND		160	µg/Kg-dry	1	2/20/2020 03:32 AM
Isopropylbenzene	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
m,p-Xylene	ND		98	µg/Kg-dry	1	2/20/2020 03:32 AM
Methyl iodide	ND		820	µg/Kg-dry	1	2/20/2020 03:32 AM
Methyl tert-butyl ether	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
Methylene chloride	ND		410	µg/Kg-dry	1	2/20/2020 03:32 AM
Naphthalene	**410**		**160**	**µg/Kg-dry**	1	2/20/2020 03:32 AM
n-Propylbenzene	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
o-Xylene	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
Styrene	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
Tetrachloroethene	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
Toluene	**89**		**49**	**µg/Kg-dry**	1	2/20/2020 03:32 AM
trans-1,2-Dichloroethene	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
trans-1,3-Dichloropropene	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
trans-1,4-Dichloro-2-butene	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
Trichloroethene	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
Trichlorofluoromethane	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
Vinyl acetate	ND		410	µg/Kg-dry	1	2/20/2020 03:32 AM
Vinyl chloride	ND		49	µg/Kg-dry	1	2/20/2020 03:32 AM
Xylenes, Total	ND		150	µg/Kg-dry	1	2/20/2020 03:32 AM
Surr: 1,2-Dichloroethane-d4	*99.8*		*70-130*	*%REC*	1	2/20/2020 03:32 AM
Surr: 4-Bromofluorobenzene	*98.8*		*70-130*	*%REC*	1	2/20/2020 03:32 AM
Surr: Dibromofluoromethane	*81.7*		*70-130*	*%REC*	1	2/20/2020 03:32 AM
Surr: Toluene-d8	*100*		*70-130*	*%REC*	1	2/20/2020 03:32 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 15:33 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-4 2-3'
Lab ID: 20021006-73
Collection Date: 2/13/2020 03:10 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**140**		**26**	**mg/Kg-dry**	1	2/20/2020 12:00 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**24**		**0.10**	**% of sample**	1	2/18/2020 01:48 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/17/20 13:08	Analyst: **JZB**
Phosphorus, Total	**480**		**130**	**mg/Kg-dry**	4	2/18/2020 11:47 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 11:25	Analyst: **DNW**
pH	**10.6**		**0.100**	**s.u.**	1	2/18/2020 08:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-4 7-8' **Lab ID:** 20021006-74
Collection Date: 2/13/2020 03:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/19/20 13:05		Analyst: **RM**
Aroclor 1016	ND		300	µg/Kg-dry	1	2/20/2020 12:18 AM
Aroclor 1221	ND		300	µg/Kg-dry	1	2/20/2020 12:18 AM
Aroclor 1232	ND		300	µg/Kg-dry	1	2/20/2020 12:18 AM
Aroclor 1242	ND		300	µg/Kg-dry	1	2/20/2020 12:18 AM
Aroclor 1248	ND		300	µg/Kg-dry	1	2/20/2020 12:18 AM
Aroclor 1254	ND		300	µg/Kg-dry	1	2/20/2020 12:18 AM
Aroclor 1260	ND		300	µg/Kg-dry	1	2/20/2020 12:18 AM
Aroclor 1262	ND		300	µg/Kg-dry	1	2/20/2020 12:18 AM
Aroclor 1268	ND		300	µg/Kg-dry	1	2/20/2020 12:18 AM
Surr: Decachlorobiphenyl	*85.0*		*40-140*	*%REC*	1	2/20/2020 12:18 AM
Surr: Tetrachloro-m-xylene	*82.3*		*45-124*	*%REC*	1	2/20/2020 12:18 AM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 12:20		Analyst: **RSH**
Mercury	**0.16**		**0.022**	**mg/Kg-dry**	1	2/20/2020 03:50 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/19/20 16:56		Analyst: **STP**
Arsenic	**8.6**		**0.47**	**mg/Kg-dry**	1	2/19/2020 07:53 PM
Barium	**74**		**0.47**	**mg/Kg-dry**	1	2/19/2020 07:53 PM
Cadmium	**89**		**1.9**	**mg/Kg-dry**	10	2/20/2020 05:17 PM
Chromium	**31**		**0.47**	**mg/Kg-dry**	1	2/19/2020 07:53 PM
Copper	**5,000**		**470**	**mg/Kg-dry**	1000	2/20/2020 05:13 PM
Lead	**1,200**		**4.7**	**mg/Kg-dry**	10	2/20/2020 05:17 PM
Nickel	**17**		**0.47**	**mg/Kg-dry**	1	2/19/2020 07:53 PM
Selenium	**0.57**		**0.47**	**mg/Kg-dry**	1	2/20/2020 05:33 PM
Silver	ND		0.47	mg/Kg-dry	1	2/19/2020 07:53 PM
Thorium	**2.2**		**0.47**	**mg/Kg-dry**	1	2/19/2020 07:53 PM
Uranium	**0.79**		**0.47**	**mg/Kg-dry**	1	2/19/2020 07:53 PM
Zinc	**2,800**		**940**	**mg/Kg-dry**	1000	2/20/2020 05:13 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/18/20 14:37		Analyst: **EEW**
1-Methylnaphthalene	**120**		**15**	**µg/Kg-dry**	1	2/20/2020 09:56 PM
2-Chloronaphthalene	ND		15	µg/Kg-dry	1	2/20/2020 09:56 PM
2-Methylnaphthalene	**110**		**15**	**µg/Kg-dry**	1	2/20/2020 09:56 PM
Acenaphthene	**290**		**15**	**µg/Kg-dry**	1	2/20/2020 09:56 PM
Acenaphthylene	**20**		**15**	**µg/Kg-dry**	1	2/20/2020 09:56 PM
Anthracene	**350**		**15**	**µg/Kg-dry**	1	2/20/2020 09:56 PM
Benzo(a)anthracene	**640**		**15**	**µg/Kg-dry**	1	2/20/2020 09:56 PM
Benzo(a)pyrene	**590**		**15**	**µg/Kg-dry**	1	2/20/2020 09:56 PM
Benzo(b)fluoranthene	**520**		**15**	**µg/Kg-dry**	1	2/20/2020 09:56 PM
Benzo(g,h,i)perylene	**330**		**15**	**µg/Kg-dry**	1	2/20/2020 09:56 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-4 7-8' **Lab ID:** 20021006-74
Collection Date: 2/13/2020 03:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**110**		**15**	**µg/Kg-dry**	1	2/20/2020 09:56 PM
Chrysene	**590**		**15**	**µg/Kg-dry**	1	2/20/2020 09:56 PM
Dibenzo(a,h)anthracene	**170**		**15**	**µg/Kg-dry**	1	2/20/2020 09:56 PM
Fluoranthene	**980**		**15**	**µg/Kg-dry**	1	2/20/2020 09:56 PM
Fluorene	**220**		**15**	**µg/Kg-dry**	1	2/20/2020 09:56 PM
Indeno(1,2,3-cd)pyrene	**310**		**15**	**µg/Kg-dry**	1	2/20/2020 09:56 PM
Naphthalene	**110**		**15**	**µg/Kg-dry**	1	2/20/2020 09:56 PM
Phenanthrene	**1,000**		**15**	**µg/Kg-dry**	1	2/20/2020 09:56 PM
Pyrene	**990**		**15**	**µg/Kg-dry**	1	2/20/2020 09:56 PM
Surr: 2-Fluorobiphenyl	*99.1*		*20-140*	*%REC*	1	2/20/2020 09:56 PM
Surr: 4-Terphenyl-d14	*101*		*22-172*	*%REC*	1	2/20/2020 09:56 PM
Surr: Nitrobenzene-d5	*113*		*28-140*	*%REC*	1	2/20/2020 09:56 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 14:26		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
1,1,1-Trichloroethane	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
1,1,2,2-Tetrachloroethane	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
1,1,2-Trichloroethane	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
1,1,2-Trichlorotrifluoroethane	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
1,1-Dichloroethane	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
1,1-Dichloroethene	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
1,2,3-Trichloropropane	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
1,2,4-Trichlorobenzene	ND		150	µg/Kg-dry	1	2/20/2020 05:32 PM
1,2,4-Trimethylbenzene	**44**		**44**	**µg/Kg-dry**	1	2/20/2020 05:32 PM
1,2-Dibromo-3-chloropropane	ND		150	µg/Kg-dry	1	2/20/2020 05:32 PM
1,2-Dibromoethane	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
1,2-Dichlorobenzene	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
1,2-Dichloroethane	ND		150	µg/Kg-dry	1	2/20/2020 05:32 PM
1,2-Dichloropropane	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
1,3,5-Trimethylbenzene	ND		150	µg/Kg-dry	1	2/20/2020 05:32 PM
1,3-Dichlorobenzene	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
1,4-Dichlorobenzene	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
2-Butanone	ND		300	µg/Kg-dry	1	2/20/2020 05:32 PM
2-Hexanone	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
2-Methylnaphthalene	**310**		**150**	**µg/Kg-dry**	1	2/20/2020 05:32 PM
4-Methyl-2-pentanone	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
Acetone	ND		150	µg/Kg-dry	1	2/20/2020 05:32 PM
Acrylonitrile	ND		150	µg/Kg-dry	1	2/20/2020 05:32 PM
Benzene	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
Bromochloromethane	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
Bromodichloromethane	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-4 7-8'
Collection Date: 2/13/2020 03:15 PM

Work Order: 20021006
Lab ID: 20021006-74
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
Bromomethane	ND		150	µg/Kg-dry	1	2/20/2020 05:32 PM
Carbon disulfide	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
Carbon tetrachloride	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
Chlorobenzene	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
Chloroethane	ND		150	µg/Kg-dry	1	2/20/2020 05:32 PM
Chloroform	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
Chloromethane	ND		150	µg/Kg-dry	1	2/20/2020 05:32 PM
cis-1,2-Dichloroethene	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
cis-1,3-Dichloropropene	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
Dibromochloromethane	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
Dibromomethane	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
Dichlorodifluoromethane	ND		150	µg/Kg-dry	1	2/20/2020 05:32 PM
Diethyl ether	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
Ethylbenzene	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
Hexachloroethane	ND		150	µg/Kg-dry	1	2/20/2020 05:32 PM
Isopropylbenzene	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
m,p-Xylene	ND		89	µg/Kg-dry	1	2/20/2020 05:32 PM
Methyl iodide	ND		740	µg/Kg-dry	1	2/20/2020 05:32 PM
Methyl tert-butyl ether	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
Methylene chloride	ND		370	µg/Kg-dry	1	2/20/2020 05:32 PM
Naphthalene	**210**		**150**	**µg/Kg-dry**	1	2/20/2020 05:32 PM
n-Propylbenzene	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
o-Xylene	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
Styrene	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
Tetrachloroethene	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
Toluene	**70**		**44**	**µg/Kg-dry**	1	2/20/2020 05:32 PM
trans-1,2-Dichloroethene	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
trans-1,3-Dichloropropene	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
trans-1,4-Dichloro-2-butene	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
Trichloroethene	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
Trichlorofluoromethane	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
Vinyl acetate	ND		370	µg/Kg-dry	1	2/20/2020 05:32 PM
Vinyl chloride	ND		44	µg/Kg-dry	1	2/20/2020 05:32 PM
Xylenes, Total	ND		130	µg/Kg-dry	1	2/20/2020 05:32 PM
Surr: 1,2-Dichloroethane-d4	*108*		*70-130*	*%REC*	1	2/20/2020 05:32 PM
Surr: 4-Bromofluorobenzene	*96.4*		*70-130*	*%REC*	1	2/20/2020 05:32 PM
Surr: Dibromofluoromethane	*96.6*		*70-130*	*%REC*	1	2/20/2020 05:32 PM
Surr: Toluene-d8	*96.6*		*70-130*	*%REC*	1	2/20/2020 05:32 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 15:33 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-4 7-8'
Lab ID: 20021006-74
Collection Date: 2/13/2020 03:15 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**110**		**25**	**mg/Kg-dry**	1	2/20/2020 12:00 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**21**		**0.10**	**% of sample**	1	2/18/2020 01:48 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/17/20 13:08	Analyst: **JZB**
Phosphorus, Total	**280**		**110**	**mg/Kg-dry**	4	2/18/2020 11:52 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 11:25	Analyst: **DNW**
pH	**11.0**		**0.100**	**s.u.**	1	2/18/2020 08:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-4 10-11'
Collection Date: 2/13/2020 03:20 PM

Work Order: 20021006
Lab ID: 20021006-75
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/19/20 13:05		Analyst: **RM**
Aroclor 1016	ND		83	µg/Kg-dry	1	2/20/2020 12:33 AM
Aroclor 1221	ND		83	µg/Kg-dry	1	2/20/2020 12:33 AM
Aroclor 1232	ND		83	µg/Kg-dry	1	2/20/2020 12:33 AM
Aroclor 1242	ND		83	µg/Kg-dry	1	2/20/2020 12:33 AM
Aroclor 1248	ND		83	µg/Kg-dry	1	2/20/2020 12:33 AM
Aroclor 1254	ND		83	µg/Kg-dry	1	2/20/2020 12:33 AM
Aroclor 1260	ND		83	µg/Kg-dry	1	2/20/2020 12:33 AM
Aroclor 1262	ND		83	µg/Kg-dry	1	2/20/2020 12:33 AM
Aroclor 1268	ND		83	µg/Kg-dry	1	2/20/2020 12:33 AM
Surr: Decachlorobiphenyl	*41.1*		*40-140*	*%REC*	1	2/20/2020 12:33 AM
Surr: Tetrachloro-m-xylene	*57.1*		*45-124*	*%REC*	1	2/20/2020 12:33 AM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 12:20		Analyst: **RSH**
Mercury	**0.063**		**0.020**	**mg/Kg-dry**	1	2/20/2020 03:52 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/19/20 16:56		Analyst: **STP**
Arsenic	**8.8**		**0.40**	**mg/Kg-dry**	1	2/19/2020 07:55 PM
Barium	**120**		**0.40**	**mg/Kg-dry**	1	2/19/2020 07:55 PM
Cadmium	ND		0.16	mg/Kg-dry	1	2/19/2020 07:55 PM
Chromium	**22**		**0.40**	**mg/Kg-dry**	1	2/19/2020 07:55 PM
Copper	**53**		**4.0**	**mg/Kg-dry**	10	2/20/2020 05:18 PM
Lead	**17**		**0.40**	**mg/Kg-dry**	1	2/19/2020 07:55 PM
Nickel	**27**		**0.40**	**mg/Kg-dry**	1	2/19/2020 07:55 PM
Selenium	ND		0.40	mg/Kg-dry	1	2/20/2020 06:11 PM
Silver	ND		0.40	mg/Kg-dry	1	2/19/2020 07:55 PM
Thorium	**6.4**		**0.40**	**mg/Kg-dry**	1	2/19/2020 07:55 PM
Uranium	**1.1**		**0.40**	**mg/Kg-dry**	1	2/19/2020 07:55 PM
Zinc	**79**		**0.79**	**mg/Kg-dry**	1	2/19/2020 07:55 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/18/20 14:37		Analyst: **EEW**
1-Methylnaphthalene	**17**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:23 PM
2-Chloronaphthalene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:23 PM
2-Methylnaphthalene	**8.6**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:23 PM
Acenaphthene	**56**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:23 PM
Acenaphthylene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:23 PM
Anthracene	**14**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:23 PM
Benzo(a)anthracene	**15**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:23 PM
Benzo(a)pyrene	**7.6**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:23 PM
Benzo(b)fluoranthene	**6.4**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:23 PM
Benzo(g,h,i)perylene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:23 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-4 10-11'
Lab ID: 20021006-75
Collection Date: 2/13/2020 03:20 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:23 PM
Chrysene	**9.0**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:23 PM
Dibenzo(a,h)anthracene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:23 PM
Fluoranthene	**25**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:23 PM
Fluorene	**14**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:23 PM
Indeno(1,2,3-cd)pyrene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:23 PM
Naphthalene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:23 PM
Phenanthrene	**42**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:23 PM
Pyrene	**29**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:23 PM
Surr: 2-Fluorobiphenyl	*90.4*		*20-140*	*%REC*	1	2/20/2020 11:23 PM
Surr: 4-Terphenyl-d14	*95.3*		*22-172*	*%REC*	1	2/20/2020 11:23 PM
Surr: Nitrobenzene-d5	*103*		*28-140*	*%REC*	1	2/20/2020 11:23 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 14:26		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
1,1,1-Trichloroethane	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
1,1,2,2-Tetrachloroethane	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
1,1,2-Trichloroethane	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
1,1,2-Trichlorotrifluoroethane	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
1,1-Dichloroethane	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
1,1-Dichloroethene	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
1,2,3-Trichloropropane	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
1,2,4-Trichlorobenzene	ND		140	µg/Kg-dry	1	2/20/2020 06:38 PM
1,2,4-Trimethylbenzene	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
1,2-Dibromo-3-chloropropane	ND		140	µg/Kg-dry	1	2/20/2020 06:38 PM
1,2-Dibromoethane	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
1,2-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
1,2-Dichloroethane	ND		140	µg/Kg-dry	1	2/20/2020 06:38 PM
1,2-Dichloropropane	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
1,3,5-Trimethylbenzene	ND		140	µg/Kg-dry	1	2/20/2020 06:38 PM
1,3-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
1,4-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
2-Butanone	ND		280	µg/Kg-dry	1	2/20/2020 06:38 PM
2-Hexanone	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
2-Methylnaphthalene	**150**		**140**	**µg/Kg-dry**	1	2/20/2020 06:38 PM
4-Methyl-2-pentanone	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
Acetone	ND		140	µg/Kg-dry	1	2/20/2020 06:38 PM
Acrylonitrile	ND		140	µg/Kg-dry	1	2/20/2020 06:38 PM
Benzene	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
Bromochloromethane	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
Bromodichloromethane	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-4 10-11'
Collection Date: 2/13/2020 03:20 PM

Work Order: 20021006
Lab ID: 20021006-75
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
Bromomethane	ND		140	µg/Kg-dry	1	2/20/2020 06:38 PM
Carbon disulfide	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
Carbon tetrachloride	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
Chlorobenzene	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
Chloroethane	ND		140	µg/Kg-dry	1	2/20/2020 06:38 PM
Chloroform	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
Chloromethane	ND		140	µg/Kg-dry	1	2/20/2020 06:38 PM
cis-1,2-Dichloroethene	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
cis-1,3-Dichloropropene	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
Dibromochloromethane	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
Dibromomethane	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
Dichlorodifluoromethane	ND		140	µg/Kg-dry	1	2/20/2020 06:38 PM
Diethyl ether	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
Ethylbenzene	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
Hexachloroethane	ND		140	µg/Kg-dry	1	2/20/2020 06:38 PM
Isopropylbenzene	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
m,p-Xylene	ND		85	µg/Kg-dry	1	2/20/2020 06:38 PM
Methyl iodide	ND		710	µg/Kg-dry	1	2/20/2020 06:38 PM
Methyl tert-butyl ether	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
Methylene chloride	ND		350	µg/Kg-dry	1	2/20/2020 06:38 PM
Naphthalene	ND		140	µg/Kg-dry	1	2/20/2020 06:38 PM
n-Propylbenzene	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
o-Xylene	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
Styrene	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
Tetrachloroethene	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
Toluene	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
trans-1,2-Dichloroethene	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
trans-1,3-Dichloropropene	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
trans-1,4-Dichloro-2-butene	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
Trichloroethene	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
Trichlorofluoromethane	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
Vinyl acetate	ND		350	µg/Kg-dry	1	2/20/2020 06:38 PM
Vinyl chloride	ND		43	µg/Kg-dry	1	2/20/2020 06:38 PM
Xylenes, Total	ND		130	µg/Kg-dry	1	2/20/2020 06:38 PM
Surr: 1,2-Dichloroethane-d4	*107*		*70-130*	*%REC*	1	2/20/2020 06:38 PM
Surr: 4-Bromofluorobenzene	*100*		*70-130*	*%REC*	1	2/20/2020 06:38 PM
Surr: Dibromofluoromethane	*95.0*		*70-130*	*%REC*	1	2/20/2020 06:38 PM
Surr: Toluene-d8	*96.6*		*70-130*	*%REC*	1	2/20/2020 06:38 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 15:59 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-4 10-11'
Collection Date: 2/13/2020 03:20 PM

Work Order: 20021006
Lab ID: 20021006-75
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor		Date Analyzed
Biochemical Oxygen Demand	ND		6.3	mg/Kg-dry	1		2/20/2020 01:23 PM
MOISTURE			**SW3550C**				Analyst: **KTP**
Moisture	**21**		**0.10**	**% of sample**	1		2/18/2020 01:48 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**			Prep: E365.1 R2.0 2/17/20 13:08	Analyst: **JZB**
Phosphorus, Total	**310**		**130**	**mg/Kg-dry**	4		2/18/2020 11:23 AM
PH			**SW9045D**			Prep: EXTRACT 2/17/20 11:25	Analyst: **DNW**
pH	**7.95**		**0.100**	**s.u.**	1		2/18/2020 08:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-4 11-12'
Collection Date: 2/13/2020 03:25 PM

Work Order: 20021006
Lab ID: 20021006-76
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/19/20 13:05		Analyst: **RM**
Aroclor 1016	ND		83	µg/Kg-dry	1	2/20/2020 12:49 AM
Aroclor 1221	ND		83	µg/Kg-dry	1	2/20/2020 12:49 AM
Aroclor 1232	ND		83	µg/Kg-dry	1	2/20/2020 12:49 AM
Aroclor 1242	ND		83	µg/Kg-dry	1	2/20/2020 12:49 AM
Aroclor 1248	ND		83	µg/Kg-dry	1	2/20/2020 12:49 AM
Aroclor 1254	ND		83	µg/Kg-dry	1	2/20/2020 12:49 AM
Aroclor 1260	ND		83	µg/Kg-dry	1	2/20/2020 12:49 AM
Aroclor 1262	ND		83	µg/Kg-dry	1	2/20/2020 12:49 AM
Aroclor 1268	ND		83	µg/Kg-dry	1	2/20/2020 12:49 AM
Surr: Decachlorobiphenyl	*29.0*	S	*40-140*	*%REC*	1	2/20/2020 12:49 AM
Surr: Tetrachloro-m-xylene	*51.8*		*45-124*	*%REC*	1	2/20/2020 12:49 AM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 12:20		Analyst: **RSH**
Mercury	**0.62**		**0.047**	**mg/Kg-dry**	2	2/21/2020 02:46 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/19/20 16:56		Analyst: **STP**
Arsenic	**7.4**		**0.40**	**mg/Kg-dry**	1	2/19/2020 07:56 PM
Barium	**140**		**0.40**	**mg/Kg-dry**	1	2/19/2020 07:56 PM
Cadmium	ND		0.16	mg/Kg-dry	1	2/19/2020 07:56 PM
Chromium	**22**		**0.40**	**mg/Kg-dry**	1	2/19/2020 07:56 PM
Copper	**25**		**4.0**	**mg/Kg-dry**	10	2/21/2020 04:34 PM
Lead	**12**		**0.40**	**mg/Kg-dry**	1	2/19/2020 07:56 PM
Nickel	**29**		**0.40**	**mg/Kg-dry**	1	2/19/2020 07:56 PM
Selenium	**0.45**		**0.40**	**mg/Kg-dry**	1	2/20/2020 06:13 PM
Silver	ND		0.40	mg/Kg-dry	1	2/19/2020 07:56 PM
Thorium	**6.8**		**0.40**	**mg/Kg-dry**	1	2/19/2020 07:56 PM
Uranium	**1.6**		**0.40**	**mg/Kg-dry**	1	2/19/2020 07:56 PM
Zinc	**55**		**0.80**	**mg/Kg-dry**	1	2/19/2020 07:56 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/18/20 14:37		Analyst: **EEW**
1-Methylnaphthalene	**23**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:39 PM
2-Chloronaphthalene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:39 PM
2-Methylnaphthalene	**14**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:39 PM
Acenaphthene	**64**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:39 PM
Acenaphthylene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:39 PM
Anthracene	**60**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:39 PM
Benzo(a)anthracene	**55**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:39 PM
Benzo(a)pyrene	**35**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:39 PM
Benzo(b)fluoranthene	**38**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:39 PM
Benzo(g,h,i)perylene	**12**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:39 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-4 11-12'
Collection Date: 2/13/2020 03:25 PM

Work Order: 20021006
Lab ID: 20021006-76
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**13**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:39 PM
Chrysene	**51**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:39 PM
Dibenzo(a,h)anthracene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:39 PM
Fluoranthene	**110**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:39 PM
Fluorene	**37**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:39 PM
Indeno(1,2,3-cd)pyrene	**14**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:39 PM
Naphthalene	**6.0**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:39 PM
Phenanthrene	**170**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:39 PM
Pyrene	**130**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:39 PM
Surr: 2-Fluorobiphenyl	*85.6*		*20-140*	*%REC*	1	2/20/2020 11:39 PM
Surr: 4-Terphenyl-d14	*89.0*		*22-172*	*%REC*	1	2/20/2020 11:39 PM
Surr: Nitrobenzene-d5	*101*		*28-140*	*%REC*	1	2/20/2020 11:39 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 14:26		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
1,1,1-Trichloroethane	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
1,1,2,2-Tetrachloroethane	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
1,1,2-Trichloroethane	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
1,1,2-Trichlorotrifluoroethane	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
1,1-Dichloroethane	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
1,1-Dichloroethene	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
1,2,3-Trichloropropane	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
1,2,4-Trichlorobenzene	ND		140	µg/Kg-dry	1	2/20/2020 05:49 PM
1,2,4-Trimethylbenzene	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
1,2-Dibromo-3-chloropropane	ND		140	µg/Kg-dry	1	2/20/2020 05:49 PM
1,2-Dibromoethane	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
1,2-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
1,2-Dichloroethane	ND		140	µg/Kg-dry	1	2/20/2020 05:49 PM
1,2-Dichloropropane	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
1,3,5-Trimethylbenzene	ND		140	µg/Kg-dry	1	2/20/2020 05:49 PM
1,3-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
1,4-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
2-Butanone	ND		290	µg/Kg-dry	1	2/20/2020 05:49 PM
2-Hexanone	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
2-Methylnaphthalene	ND		140	µg/Kg-dry	1	2/20/2020 05:49 PM
4-Methyl-2-pentanone	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
Acetone	ND		140	µg/Kg-dry	1	2/20/2020 05:49 PM
Acrylonitrile	ND		140	µg/Kg-dry	1	2/20/2020 05:49 PM
Benzene	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
Bromochloromethane	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
Bromodichloromethane	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-4 11-12'
Collection Date: 2/13/2020 03:25 PM

Work Order: 20021006
Lab ID: 20021006-76
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
Bromomethane	ND		140	µg/Kg-dry	1	2/20/2020 05:49 PM
Carbon disulfide	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
Carbon tetrachloride	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
Chlorobenzene	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
Chloroethane	ND		140	µg/Kg-dry	1	2/20/2020 05:49 PM
Chloroform	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
Chloromethane	ND		140	µg/Kg-dry	1	2/20/2020 05:49 PM
cis-1,2-Dichloroethene	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
cis-1,3-Dichloropropene	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
Dibromochloromethane	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
Dibromomethane	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
Dichlorodifluoromethane	ND		140	µg/Kg-dry	1	2/20/2020 05:49 PM
Diethyl ether	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
Ethylbenzene	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
Hexachloroethane	ND		140	µg/Kg-dry	1	2/20/2020 05:49 PM
Isopropylbenzene	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
m,p-Xylene	ND		86	µg/Kg-dry	1	2/20/2020 05:49 PM
Methyl iodide	ND		720	µg/Kg-dry	1	2/20/2020 05:49 PM
Methyl tert-butyl ether	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
Methylene chloride	ND		360	µg/Kg-dry	1	2/20/2020 05:49 PM
Naphthalene	ND		140	µg/Kg-dry	1	2/20/2020 05:49 PM
n-Propylbenzene	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
o-Xylene	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
Styrene	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
Tetrachloroethene	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
Toluene	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
trans-1,2-Dichloroethene	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
trans-1,3-Dichloropropene	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
trans-1,4-Dichloro-2-butene	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
Trichloroethene	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
Trichlorofluoromethane	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
Vinyl acetate	ND		360	µg/Kg-dry	1	2/20/2020 05:49 PM
Vinyl chloride	ND		43	µg/Kg-dry	1	2/20/2020 05:49 PM
Xylenes, Total	ND		130	µg/Kg-dry	1	2/20/2020 05:49 PM
Surr: 1,2-Dichloroethane-d4	*105*		*70-130*	*%REC*	1	2/20/2020 05:49 PM
Surr: 4-Bromofluorobenzene	*95.8*		*70-130*	*%REC*	1	2/20/2020 05:49 PM
Surr: Dibromofluoromethane	*94.4*		*70-130*	*%REC*	1	2/20/2020 05:49 PM
Surr: Toluene-d8	*96.1*		*70-130*	*%REC*	1	2/20/2020 05:49 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 15:59 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-4 11-12'
Collection Date: 2/13/2020 03:25 PM

Work Order: 20021006
Lab ID: 20021006-76
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	ND		6.3	mg/Kg-dry	1	2/20/2020 01:23 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**21**		**0.10**	**% of sample**	1	2/18/2020 01:48 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/17/20 13:08	Analyst: **JZB**
Phosphorus, Total	**270**		**110**	**mg/Kg-dry**	4	2/18/2020 11:24 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 11:25	Analyst: **DNW**
pH	**8.14**		**0.100**	**s.u.**	1	2/18/2020 08:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-4 12-13'
Collection Date: 2/13/2020 03:30 PM

Work Order: 20021006
Lab ID: 20021006-77
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/19/20 13:05		Analyst: **RM**
Aroclor 1016	ND		81	µg/Kg-dry	1	2/20/2020 01:04 AM
Aroclor 1221	ND		81	µg/Kg-dry	1	2/20/2020 01:04 AM
Aroclor 1232	ND		81	µg/Kg-dry	1	2/20/2020 01:04 AM
Aroclor 1242	ND		81	µg/Kg-dry	1	2/20/2020 01:04 AM
Aroclor 1248	ND		81	µg/Kg-dry	1	2/20/2020 01:04 AM
Aroclor 1254	ND		81	µg/Kg-dry	1	2/20/2020 01:04 AM
Aroclor 1260	ND		81	µg/Kg-dry	1	2/20/2020 01:04 AM
Aroclor 1262	ND		81	µg/Kg-dry	1	2/20/2020 01:04 AM
Aroclor 1268	ND		81	µg/Kg-dry	1	2/20/2020 01:04 AM
Surr: Decachlorobiphenyl	*39.5*	S	*40-140*	*%REC*	1	2/20/2020 01:04 AM
Surr: Tetrachloro-m-xylene	*56.4*		*45-124*	*%REC*	1	2/20/2020 01:04 AM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 12:20		Analyst: **RSH**
Mercury	**0.047**		**0.023**	**mg/Kg-dry**	1	2/20/2020 03:58 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/19/20 16:56		Analyst: **STP**
Arsenic	**10**		**0.51**	**mg/Kg-dry**	1	2/19/2020 07:58 PM
Barium	**120**		**0.51**	**mg/Kg-dry**	1	2/19/2020 07:58 PM
Cadmium	ND		0.21	mg/Kg-dry	1	2/19/2020 07:58 PM
Chromium	**22**		**0.51**	**mg/Kg-dry**	1	2/19/2020 07:58 PM
Copper	**44**		**5.1**	**mg/Kg-dry**	10	2/21/2020 04:36 PM
Lead	**18**		**0.51**	**mg/Kg-dry**	1	2/19/2020 07:58 PM
Nickel	**28**		**0.51**	**mg/Kg-dry**	1	2/19/2020 07:58 PM
Selenium	ND		0.51	mg/Kg-dry	1	2/20/2020 06:15 PM
Silver	ND		0.51	mg/Kg-dry	1	2/19/2020 07:58 PM
Thorium	**6.1**		**0.51**	**mg/Kg-dry**	1	2/19/2020 07:58 PM
Uranium	**1.1**		**0.51**	**mg/Kg-dry**	1	2/19/2020 07:58 PM
Zinc	**74**		**1.0**	**mg/Kg-dry**	1	2/19/2020 07:58 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/18/20 14:37		Analyst: **EEW**
1-Methylnaphthalene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:54 PM
2-Chloronaphthalene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:54 PM
2-Methylnaphthalene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:54 PM
Acenaphthene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:54 PM
Acenaphthylene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:54 PM
Anthracene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:54 PM
Benzo(a)anthracene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:54 PM
Benzo(a)pyrene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:54 PM
Benzo(b)fluoranthene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:54 PM
Benzo(g,h,i)perylene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:54 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-4 12-13'
Collection Date: 2/13/2020 03:30 PM

Work Order: 20021006
Lab ID: 20021006-77
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:54 PM
Chrysene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:54 PM
Dibenzo(a,h)anthracene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:54 PM
Fluoranthene	**5.4**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:54 PM
Fluorene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:54 PM
Indeno(1,2,3-cd)pyrene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:54 PM
Naphthalene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:54 PM
Phenanthrene	**6.1**		**5.2**	**µg/Kg-dry**	1	2/20/2020 11:54 PM
Pyrene	ND		5.2	µg/Kg-dry	1	2/20/2020 11:54 PM
Surr: 2-Fluorobiphenyl	*93.0*		*20-140*	*%REC*	1	2/20/2020 11:54 PM
Surr: 4-Terphenyl-d14	*101*		*22-172*	*%REC*	1	2/20/2020 11:54 PM
Surr: Nitrobenzene-d5	*113*		*28-140*	*%REC*	1	2/20/2020 11:54 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 14:26		Analyst: **BG**
1,1,1,2-Tetrachloroethane	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
1,1,1-Trichloroethane	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
1,1,2,2-Tetrachloroethane	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
1,1,2-Trichloroethane	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
1,1,2-Trichlorotrifluoroethane	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
1,1-Dichloroethane	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
1,1-Dichloroethene	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
1,2,3-Trichloropropane	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
1,2,4-Trichlorobenzene	ND		150	µg/Kg-dry	1	2/21/2020 04:43 AM
1,2,4-Trimethylbenzene	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
1,2-Dibromo-3-chloropropane	ND		150	µg/Kg-dry	1	2/21/2020 04:43 AM
1,2-Dibromoethane	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
1,2-Dichlorobenzene	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
1,2-Dichloroethane	ND		150	µg/Kg-dry	1	2/21/2020 04:43 AM
1,2-Dichloropropane	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
1,3,5-Trimethylbenzene	ND		150	µg/Kg-dry	1	2/21/2020 04:43 AM
1,3-Dichlorobenzene	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
1,4-Dichlorobenzene	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
2-Butanone	ND		300	µg/Kg-dry	1	2/21/2020 04:43 AM
2-Hexanone	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
2-Methylnaphthalene	ND		150	µg/Kg-dry	1	2/21/2020 04:43 AM
4-Methyl-2-pentanone	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
Acetone	ND		150	µg/Kg-dry	1	2/21/2020 04:43 AM
Acrylonitrile	ND		150	µg/Kg-dry	1	2/21/2020 04:43 AM
Benzene	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
Bromochloromethane	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
Bromodichloromethane	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-4 12-13'
Collection Date: 2/13/2020 03:30 PM

Work Order: 20021006
Lab ID: 20021006-77
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
Bromomethane	ND		150	µg/Kg-dry	1	2/21/2020 04:43 AM
Carbon disulfide	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
Carbon tetrachloride	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
Chlorobenzene	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
Chloroethane	ND		150	µg/Kg-dry	1	2/21/2020 04:43 AM
Chloroform	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
Chloromethane	ND		150	µg/Kg-dry	1	2/21/2020 04:43 AM
cis-1,2-Dichloroethene	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
cis-1,3-Dichloropropene	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
Dibromochloromethane	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
Dibromomethane	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
Dichlorodifluoromethane	ND		150	µg/Kg-dry	1	2/21/2020 04:43 AM
Diethyl ether	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
Ethylbenzene	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
Hexachloroethane	ND		150	µg/Kg-dry	1	2/21/2020 04:43 AM
Isopropylbenzene	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
m,p-Xylene	ND		89	µg/Kg-dry	1	2/21/2020 04:43 AM
Methyl iodide	ND		740	µg/Kg-dry	1	2/21/2020 04:43 AM
Methyl tert-butyl ether	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
Methylene chloride	ND		370	µg/Kg-dry	1	2/21/2020 04:43 AM
Naphthalene	ND		150	µg/Kg-dry	1	2/21/2020 04:43 AM
n-Propylbenzene	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
o-Xylene	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
Styrene	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
Tetrachloroethene	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
Toluene	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
trans-1,2-Dichloroethene	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
trans-1,3-Dichloropropene	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
trans-1,4-Dichloro-2-butene	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
Trichloroethene	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
Trichlorofluoromethane	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
Vinyl acetate	ND		370	µg/Kg-dry	1	2/21/2020 04:43 AM
Vinyl chloride	ND		44	µg/Kg-dry	1	2/21/2020 04:43 AM
Xylenes, Total	ND		130	µg/Kg-dry	1	2/21/2020 04:43 AM
Surr: 1,2-Dichloroethane-d4	*95.0*		*70-130*	*%REC*	1	2/21/2020 04:43 AM
Surr: 4-Bromofluorobenzene	*94.7*		*70-130*	*%REC*	1	2/21/2020 04:43 AM
Surr: Dibromofluoromethane	*96.8*		*70-130*	*%REC*	1	2/21/2020 04:43 AM
Surr: Toluene-d8	*95.2*		*70-130*	*%REC*	1	2/21/2020 04:43 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 15:59 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-4 12-13'
Lab ID: 20021006-77
Collection Date: 2/13/2020 03:30 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	ND		6.3	mg/Kg-dry	1	2/20/2020 01:23 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**21**		**0.10**	**% of sample**	1	2/18/2020 01:48 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/18/20 14:05	Analyst: **JZB**
Phosphorus, Total	**370**		**140**	**mg/Kg-dry**	4	2/19/2020 10:28 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 11:25	Analyst: **DNW**
pH	**8.20**		**0.100**	**s.u.**	1	2/18/2020 08:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-4 13-14'
Collection Date: 2/13/2020 03:35 PM

Work Order: 20021006
Lab ID: 20021006-78
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/19/20 13:05		Analyst: **RM**
Aroclor 1016	ND		83	µg/Kg-dry	1	2/20/2020 01:19 AM
Aroclor 1221	ND		83	µg/Kg-dry	1	2/20/2020 01:19 AM
Aroclor 1232	ND		83	µg/Kg-dry	1	2/20/2020 01:19 AM
Aroclor 1242	ND		83	µg/Kg-dry	1	2/20/2020 01:19 AM
Aroclor 1248	ND		83	µg/Kg-dry	1	2/20/2020 01:19 AM
Aroclor 1254	ND		83	µg/Kg-dry	1	2/20/2020 01:19 AM
Aroclor 1260	ND		83	µg/Kg-dry	1	2/20/2020 01:19 AM
Aroclor 1262	ND		83	µg/Kg-dry	1	2/20/2020 01:19 AM
Aroclor 1268	ND		83	µg/Kg-dry	1	2/20/2020 01:19 AM
Surr: Decachlorobiphenyl	*68.7*		*40-140*	*%REC*	1	2/20/2020 01:19 AM
Surr: Tetrachloro-m-xylene	*72.7*		*45-124*	*%REC*	1	2/20/2020 01:19 AM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 12:20		Analyst: **RSH**
Mercury	ND		0.024	mg/Kg-dry	1	2/20/2020 04:10 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/19/20 16:56		Analyst: **STP**
Arsenic	**9.2**		**0.44**	**mg/Kg-dry**	1	2/19/2020 08:00 PM
Barium	**160**		**4.4**	**mg/Kg-dry**	10	2/20/2020 05:26 PM
Cadmium	ND		0.17	mg/Kg-dry	1	2/19/2020 08:00 PM
Chromium	**24**		**0.44**	**mg/Kg-dry**	1	2/19/2020 08:00 PM
Copper	**53**		**4.4**	**mg/Kg-dry**	10	2/21/2020 04:37 PM
Lead	**17**		**0.44**	**mg/Kg-dry**	1	2/19/2020 08:00 PM
Nickel	**30**		**0.44**	**mg/Kg-dry**	1	2/19/2020 08:00 PM
Selenium	**0.52**		**0.44**	**mg/Kg-dry**	1	2/20/2020 06:17 PM
Silver	ND		0.44	mg/Kg-dry	1	2/19/2020 08:00 PM
Thorium	**6.9**		**0.44**	**mg/Kg-dry**	1	2/19/2020 08:00 PM
Uranium	**1.3**		**0.44**	**mg/Kg-dry**	1	2/19/2020 08:00 PM
Zinc	**91**		**0.87**	**mg/Kg-dry**	1	2/19/2020 08:00 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/18/20 14:37		Analyst: **EEW**
1-Methylnaphthalene	**9.3**		**5.1**	**µg/Kg-dry**	1	2/19/2020 07:20 PM
2-Chloronaphthalene	ND		5.1	µg/Kg-dry	1	2/19/2020 07:20 PM
2-Methylnaphthalene	ND		5.1	µg/Kg-dry	1	2/19/2020 07:20 PM
Acenaphthene	**23**		**5.1**	**µg/Kg-dry**	1	2/19/2020 07:20 PM
Acenaphthylene	ND		5.1	µg/Kg-dry	1	2/19/2020 07:20 PM
Anthracene	**18**		**5.1**	**µg/Kg-dry**	1	2/19/2020 07:20 PM
Benzo(a)anthracene	**12**		**5.1**	**µg/Kg-dry**	1	2/19/2020 07:20 PM
Benzo(a)pyrene	**7.1**		**5.1**	**µg/Kg-dry**	1	2/19/2020 07:20 PM
Benzo(b)fluoranthene	**8.9**		**5.1**	**µg/Kg-dry**	1	2/19/2020 07:20 PM
Benzo(g,h,i)perylene	**5.4**		**5.1**	**µg/Kg-dry**	1	2/19/2020 07:20 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-4 13-14'
Lab ID: 20021006-78
Collection Date: 2/13/2020 03:35 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.1	µg/Kg-dry	1	2/19/2020 07:20 PM
Chrysene	**9.8**		**5.1**	**µg/Kg-dry**	1	2/19/2020 07:20 PM
Dibenzo(a,h)anthracene	ND		5.1	µg/Kg-dry	1	2/19/2020 07:20 PM
Fluoranthene	**29**		**5.1**	**µg/Kg-dry**	1	2/19/2020 07:20 PM
Fluorene	**13**		**5.1**	**µg/Kg-dry**	1	2/19/2020 07:20 PM
Indeno(1,2,3-cd)pyrene	ND		5.1	µg/Kg-dry	1	2/19/2020 07:20 PM
Naphthalene	ND		5.1	µg/Kg-dry	1	2/19/2020 07:20 PM
Phenanthrene	**49**		**5.1**	**µg/Kg-dry**	1	2/19/2020 07:20 PM
Pyrene	**34**		**5.1**	**µg/Kg-dry**	1	2/19/2020 07:20 PM
Surr: 2-Fluorobiphenyl	*85.9*		*20-140*	*%REC*	1	2/19/2020 07:20 PM
Surr: 4-Terphenyl-d14	*100*		*22-172*	*%REC*	1	2/19/2020 07:20 PM
Surr: Nitrobenzene-d5	*86.6*		*28-140*	*%REC*	1	2/19/2020 07:20 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 14:26		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
1,1,1-Trichloroethane	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
1,1,2,2-Tetrachloroethane	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
1,1,2-Trichloroethane	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
1,1,2-Trichlorotrifluoroethane	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
1,1-Dichloroethane	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
1,1-Dichloroethene	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
1,2,3-Trichloropropane	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
1,2,4-Trichlorobenzene	ND		140	µg/Kg-dry	1	2/20/2020 06:22 PM
1,2,4-Trimethylbenzene	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
1,2-Dibromo-3-chloropropane	ND		140	µg/Kg-dry	1	2/20/2020 06:22 PM
1,2-Dibromoethane	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
1,2-Dichlorobenzene	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
1,2-Dichloroethane	ND		140	µg/Kg-dry	1	2/20/2020 06:22 PM
1,2-Dichloropropane	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
1,3,5-Trimethylbenzene	ND		140	µg/Kg-dry	1	2/20/2020 06:22 PM
1,3-Dichlorobenzene	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
1,4-Dichlorobenzene	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
2-Butanone	ND		280	µg/Kg-dry	1	2/20/2020 06:22 PM
2-Hexanone	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
2-Methylnaphthalene	ND		140	µg/Kg-dry	1	2/20/2020 06:22 PM
4-Methyl-2-pentanone	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
Acetone	ND		140	µg/Kg-dry	1	2/20/2020 06:22 PM
Acrylonitrile	ND		140	µg/Kg-dry	1	2/20/2020 06:22 PM
Benzene	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
Bromochloromethane	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
Bromodichloromethane	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-4 13-14'
Lab ID: 20021006-78
Collection Date: 2/13/2020 03:35 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
Bromomethane	ND		140	µg/Kg-dry	1	2/20/2020 06:22 PM
Carbon disulfide	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
Carbon tetrachloride	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
Chlorobenzene	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
Chloroethane	ND		140	µg/Kg-dry	1	2/20/2020 06:22 PM
Chloroform	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
Chloromethane	ND		140	µg/Kg-dry	1	2/20/2020 06:22 PM
cis-1,2-Dichloroethene	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
cis-1,3-Dichloropropene	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
Dibromochloromethane	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
Dibromomethane	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
Dichlorodifluoromethane	ND		140	µg/Kg-dry	1	2/20/2020 06:22 PM
Diethyl ether	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
Ethylbenzene	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
Hexachloroethane	ND		140	µg/Kg-dry	1	2/20/2020 06:22 PM
Isopropylbenzene	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
m,p-Xylene	ND		83	µg/Kg-dry	1	2/20/2020 06:22 PM
Methyl iodide	ND		700	µg/Kg-dry	1	2/20/2020 06:22 PM
Methyl tert-butyl ether	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
Methylene chloride	ND		350	µg/Kg-dry	1	2/20/2020 06:22 PM
Naphthalene	ND		140	µg/Kg-dry	1	2/20/2020 06:22 PM
n-Propylbenzene	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
o-Xylene	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
Styrene	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
Tetrachloroethene	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
Toluene	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
trans-1,2-Dichloroethene	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
trans-1,3-Dichloropropene	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
trans-1,4-Dichloro-2-butene	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
Trichloroethene	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
Trichlorofluoromethane	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
Vinyl acetate	ND		350	µg/Kg-dry	1	2/20/2020 06:22 PM
Vinyl chloride	ND		42	µg/Kg-dry	1	2/20/2020 06:22 PM
Xylenes, Total	ND		130	µg/Kg-dry	1	2/20/2020 06:22 PM
Surr: 1,2-Dichloroethane-d4	*103*		*70-130*	*%REC*	1	2/20/2020 06:22 PM
Surr: 4-Bromofluorobenzene	*101*		*70-130*	*%REC*	1	2/20/2020 06:22 PM
Surr: Dibromofluoromethane	*92.8*		*70-130*	*%REC*	1	2/20/2020 06:22 PM
Surr: Toluene-d8	*96.7*		*70-130*	*%REC*	1	2/20/2020 06:22 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 15:59 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-4 13-14'
Collection Date: 2/13/2020 03:35 PM

Work Order: 20021006
Lab ID: 20021006-78
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	ND		6.2	mg/Kg-dry	1	2/20/2020 01:23 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**20**		**0.10**	**% of sample**	1	2/18/2020 01:48 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/18/20 14:05	Analyst: **JZB**
Phosphorus, Total	**380**		**110**	**mg/Kg-dry**	4	2/19/2020 10:29 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 11:25	Analyst: **DNW**
pH	**8.02**		**0.100**	**s.u.**	1	2/18/2020 08:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-4 14-15'
Collection Date: 2/13/2020 03:40 PM

Work Order: 20021006
Lab ID: 20021006-79
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/19/20 13:05		Analyst: **RM**
Aroclor 1016	ND		85	µg/Kg-dry	1	2/19/2020 08:43 PM
Aroclor 1221	ND		85	µg/Kg-dry	1	2/19/2020 08:43 PM
Aroclor 1232	ND		85	µg/Kg-dry	1	2/19/2020 08:43 PM
Aroclor 1242	ND		85	µg/Kg-dry	1	2/19/2020 08:43 PM
Aroclor 1248	ND		85	µg/Kg-dry	1	2/19/2020 08:43 PM
Aroclor 1254	ND		85	µg/Kg-dry	1	2/19/2020 08:43 PM
Aroclor 1260	ND		85	µg/Kg-dry	1	2/19/2020 08:43 PM
Aroclor 1262	ND		85	µg/Kg-dry	1	2/19/2020 08:43 PM
Aroclor 1268	ND		85	µg/Kg-dry	1	2/19/2020 08:43 PM
Surr: Decachlorobiphenyl	*71.7*		*40-140*	*%REC*	1	2/19/2020 08:43 PM
Surr: Tetrachloro-m-xylene	*74.1*		*45-124*	*%REC*	1	2/19/2020 08:43 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/20/20 12:20		Analyst: **RSH**
Mercury	**0.11**		**0.024**	**mg/Kg-dry**	1	2/20/2020 04:12 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/19/20 16:56		Analyst: **STP**
Arsenic	**55**		**0.42**	**mg/Kg-dry**	1	2/19/2020 08:02 PM
Barium	**110**		**0.42**	**mg/Kg-dry**	1	2/19/2020 08:02 PM
Cadmium	ND		0.17	mg/Kg-dry	1	2/19/2020 08:02 PM
Chromium	**24**		**0.42**	**mg/Kg-dry**	1	2/19/2020 08:02 PM
Copper	**64**		**4.2**	**mg/Kg-dry**	10	2/21/2020 04:39 PM
Lead	**30**		**0.42**	**mg/Kg-dry**	1	2/19/2020 08:02 PM
Nickel	**33**		**0.42**	**mg/Kg-dry**	1	2/19/2020 08:02 PM
Selenium	ND		0.42	mg/Kg-dry	1	2/20/2020 06:18 PM
Silver	ND		0.42	mg/Kg-dry	1	2/19/2020 08:02 PM
Thorium	**6.5**		**0.42**	**mg/Kg-dry**	1	2/19/2020 08:02 PM
Uranium	**1.2**		**0.42**	**mg/Kg-dry**	1	2/19/2020 08:02 PM
Zinc	**120**		**0.85**	**mg/Kg-dry**	1	2/19/2020 08:02 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:31		Analyst: **EEW**
1-Methylnaphthalene	**5.4**		**5.3**	**µg/Kg-dry**	1	2/21/2020 12:56 PM
2-Chloronaphthalene	ND		5.3	µg/Kg-dry	1	2/21/2020 12:56 PM
2-Methylnaphthalene	ND		5.3	µg/Kg-dry	1	2/21/2020 12:56 PM
Acenaphthene	**25**		**5.3**	**µg/Kg-dry**	1	2/21/2020 12:56 PM
Acenaphthylene	ND		5.3	µg/Kg-dry	1	2/21/2020 12:56 PM
Anthracene	**5.9**		**5.3**	**µg/Kg-dry**	1	2/21/2020 12:56 PM
Benzo(a)anthracene	ND		5.3	µg/Kg-dry	1	2/21/2020 12:56 PM
Benzo(a)pyrene	ND		5.3	µg/Kg-dry	1	2/21/2020 12:56 PM
Benzo(b)fluoranthene	ND		5.3	µg/Kg-dry	1	2/21/2020 12:56 PM
Benzo(g,h,i)perylene	ND		5.3	µg/Kg-dry	1	2/21/2020 12:56 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021006
Sample ID: S-4 14-15' **Lab ID:** 20021006-79
Collection Date: 2/13/2020 03:40 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.3	µg/Kg-dry	1	2/21/2020 12:56 PM
Chrysene	ND		5.3	µg/Kg-dry	1	2/21/2020 12:56 PM
Dibenzo(a,h)anthracene	ND		5.3	µg/Kg-dry	1	2/21/2020 12:56 PM
Fluoranthene	**9.5**		**5.3**	**µg/Kg-dry**	1	2/21/2020 12:56 PM
Fluorene	**12**		**5.3**	**µg/Kg-dry**	1	2/21/2020 12:56 PM
Indeno(1,2,3-cd)pyrene	ND		5.3	µg/Kg-dry	1	2/21/2020 12:56 PM
Naphthalene	ND		5.3	µg/Kg-dry	1	2/21/2020 12:56 PM
Phenanthrene	**21**		**5.3**	**µg/Kg-dry**	1	2/21/2020 12:56 PM
Pyrene	**10**		**5.3**	**µg/Kg-dry**	1	2/21/2020 12:56 PM
Surr: 2-Fluorobiphenyl	*98.7*		*20-140*	*%REC*	1	2/21/2020 12:56 PM
Surr: 4-Terphenyl-d14	*108*		*22-172*	*%REC*	1	2/21/2020 12:56 PM
Surr: Nitrobenzene-d5	*116*		*28-140*	*%REC*	1	2/21/2020 12:56 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/17/20 17:12		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
1,1,1-Trichloroethane	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
1,1,2,2-Tetrachloroethane	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
1,1,2-Trichloroethane	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
1,1,2-Trichlorotrifluoroethane	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
1,1-Dichloroethane	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
1,1-Dichloroethene	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
1,2,3-Trichloropropane	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
1,2,4-Trichlorobenzene	ND		140	µg/Kg-dry	1	2/20/2020 06:05 PM
1,2,4-Trimethylbenzene	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
1,2-Dibromo-3-chloropropane	ND		140	µg/Kg-dry	1	2/20/2020 06:05 PM
1,2-Dibromoethane	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
1,2-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
1,2-Dichloroethane	ND		140	µg/Kg-dry	1	2/20/2020 06:05 PM
1,2-Dichloropropane	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
1,3,5-Trimethylbenzene	ND		140	µg/Kg-dry	1	2/20/2020 06:05 PM
1,3-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
1,4-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
2-Butanone	ND		290	µg/Kg-dry	1	2/20/2020 06:05 PM
2-Hexanone	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
2-Methylnaphthalene	ND		140	µg/Kg-dry	1	2/20/2020 06:05 PM
4-Methyl-2-pentanone	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
Acetone	ND		140	µg/Kg-dry	1	2/20/2020 06:05 PM
Acrylonitrile	ND		140	µg/Kg-dry	1	2/20/2020 06:05 PM
Benzene	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
Bromochloromethane	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
Bromodichloromethane	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-4 14-15'
Lab ID: 20021006-79
Collection Date: 2/13/2020 03:40 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
Bromomethane	ND		140	µg/Kg-dry	1	2/20/2020 06:05 PM
Carbon disulfide	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
Carbon tetrachloride	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
Chlorobenzene	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
Chloroethane	ND		140	µg/Kg-dry	1	2/20/2020 06:05 PM
Chloroform	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
Chloromethane	ND		140	µg/Kg-dry	1	2/20/2020 06:05 PM
cis-1,2-Dichloroethene	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
cis-1,3-Dichloropropene	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
Dibromochloromethane	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
Dibromomethane	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
Dichlorodifluoromethane	ND		140	µg/Kg-dry	1	2/20/2020 06:05 PM
Diethyl ether	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
Ethylbenzene	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
Hexachloroethane	ND		140	µg/Kg-dry	1	2/20/2020 06:05 PM
Isopropylbenzene	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
m,p-Xylene	ND		87	µg/Kg-dry	1	2/20/2020 06:05 PM
Methyl iodide	ND		720	µg/Kg-dry	1	2/20/2020 06:05 PM
Methyl tert-butyl ether	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
Methylene chloride	ND		360	µg/Kg-dry	1	2/20/2020 06:05 PM
Naphthalene	ND		140	µg/Kg-dry	1	2/20/2020 06:05 PM
n-Propylbenzene	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
o-Xylene	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
Styrene	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
Tetrachloroethene	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
Toluene	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
trans-1,2-Dichloroethene	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
trans-1,3-Dichloropropene	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
trans-1,4-Dichloro-2-butene	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
Trichloroethene	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
Trichlorofluoromethane	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
Vinyl acetate	ND		360	µg/Kg-dry	1	2/20/2020 06:05 PM
Vinyl chloride	ND		43	µg/Kg-dry	1	2/20/2020 06:05 PM
Xylenes, Total	ND		130	µg/Kg-dry	1	2/20/2020 06:05 PM
Surr: 1,2-Dichloroethane-d4	*107*		*70-130*	*%REC*	1	2/20/2020 06:05 PM
Surr: 4-Bromofluorobenzene	*100*		*70-130*	*%REC*	1	2/20/2020 06:05 PM
Surr: Dibromofluoromethane	*98.7*		*70-130*	*%REC*	1	2/20/2020 06:05 PM
Surr: Toluene-d8	*95.6*		*70-130*	*%REC*	1	2/20/2020 06:05 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/15/20 15:59 Analyst: **DVD**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021006
Sample ID: S-4 14-15'
Lab ID: 20021006-79
Collection Date: 2/13/2020 03:40 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	ND		6.4	mg/Kg-dry	1	2/20/2020 01:23 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**22**		**0.10**	**% of sample**	1	2/18/2020 01:48 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/18/20 14:05	Analyst: **JZB**
Phosphorus, Total	**460**		**130**	**mg/Kg-dry**	4	2/19/2020 10:31 AM
PH			**SW9045D**		Prep: EXTRACT 2/17/20 11:25	Analyst: **DNW**
pH	**7.97**		**0.100**	**s.u.**	1	2/18/2020 08:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: A6 TCLP
Collection Date: 2/13/2020 12:00 PM

Work Order: 20021006
Lab ID: 20021006-80
Matrix: TCLP EXTRACT

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP METALS ANALYSIS BY ICP-MS			**SW6020B**		Prep: SW3015A 2/27/20 14:52	Analyst: **STP**
Lead	**0.23**		**0.050**	**mg/L**	1	2/27/2020 09:56 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 03-Mar-20

Client: PM Environmental

Work Order: 20021006

Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152021** Instrument ID **GC14** Method: **SW8082**

MBLK Sample ID: **PBLKS1-152021-152021** Units: **µg/Kg** Analysis Date: **2/17/2020 06:26 PM**

Client ID: Run ID: **GC14_200217A** SeqNo: **6256353** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	67								
Aroclor 1221	ND	67								
Aroclor 1232	ND	67								
Aroclor 1242	ND	67								
Aroclor 1248	ND	67								
Aroclor 1254	ND	67								
Aroclor 1260	ND	67								
Aroclor 1262	ND	67								
Aroclor 1268	ND	67								
Surr: Decachlorobiphenyl	*28.19*	0	*33.3*	0	*84.6*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*26.84*	0	*33.3*	0	*80.6*	*45-124*	0			

LCS Sample ID: **PLCSS1-152021-152021** Units: **µg/Kg** Analysis Date: **2/17/2020 06:42 PM**

Client ID: Run ID: **GC14_200217A** SeqNo: **6256354** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	797.2	67	833	0	95.7	50-130	0			
Aroclor 1260	812.3	67	833	0	97.5	50-130	0			
Surr: Decachlorobiphenyl	*32.29*	0	*33.3*	0	*97*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*31.26*	0	*33.3*	0	*93.9*	*45-124*	0			

MS Sample ID: **20020928-01C MS** Units: **µg/Kg** Analysis Date: **2/17/2020 06:57 PM**

Client ID: Run ID: **GC14_200217A** SeqNo: **6256355** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	742.3	66	824.5	0	90	40-140	0			
Aroclor 1260	823.8	66	824.5	0	99.9	40-140	0			
Surr: Decachlorobiphenyl	*30.47*	0	*32.96*	0	*92.4*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*28.91*	0	*32.96*	0	*87.7*	*45-124*	0			

MSD Sample ID: **20020928-01C MSD** Units: **µg/Kg** Analysis Date: **2/17/2020 07:13 PM**

Client ID: Run ID: **GC14_200217A** SeqNo: **6256356** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	734.6	66	818.5	0	89.7	40-140	742.3	1.04	50	
Aroclor 1260	782.7	66	818.5	0	95.6	40-140	823.8	5.12	50	
Surr: Decachlorobiphenyl	*30.09*	0	*32.72*	0	*92*	*40-140*	30.47	*1.25*	*50*	
Surr: Tetrachloro-m-xylene	*28.12*	0	*32.72*	0	*85.9*	*45-124*	28.91	*2.76*	*50*	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152021** Instrument ID **GC14** Method: **SW8082**

The following samples were analyzed in this batch:

20021006-40B	20021006-41B	20021006-42B
20021006-43B	20021006-44B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152049** Instrument ID **GC14** Method: **SW8082**

MBLK Sample ID: **PBLKS1-152049-152049** Units: **µg/Kg** Analysis Date: **2/18/2020 03:09 PM**

Client ID: Run ID: **GC14_200218A** SeqNo: **6259257** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	67								
Aroclor 1221	ND	67								
Aroclor 1232	ND	67								
Aroclor 1242	ND	67								
Aroclor 1248	ND	67								
Aroclor 1254	ND	67								
Aroclor 1260	ND	67								
Aroclor 1262	ND	67								
Aroclor 1268	ND	67								
Surr: Decachlorobiphenyl	*28.34*	0	*33.3*	0	*85.1*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*26.62*	0	*33.3*	0	*79.9*	*45-124*	0			

LCS Sample ID: **PLCSS1-152049-152049** Units: **µg/Kg** Analysis Date: **2/18/2020 03:24 PM**

Client ID: Run ID: **GC14_200218A** SeqNo: **6259258** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	821.9	67	833	0	98.7	50-130	0			
Aroclor 1260	844.9	67	833	0	101	50-130	0			
Surr: Decachlorobiphenyl	*33.35*	0	*33.3*	0	*100*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*32.17*	0	*33.3*	0	*96.6*	*45-124*	0			

MS Sample ID: **20021006-63B MS** Units: **µg/Kg** Analysis Date: **2/18/2020 03:40 PM**

Client ID: **S-13R 2-3'** Run ID: **GC14_200218A** SeqNo: **6259259** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	753	66	822.2	0	91.6	40-140	0			
Aroclor 1260	786.5	66	822.2	0	95.7	40-140	0			
Surr: Decachlorobiphenyl	*28.93*	0	*32.87*	0	*88*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*30.01*	0	*32.87*	0	*91.3*	*45-124*	0			

MSD Sample ID: **20021006-63B MSD** Units: **µg/Kg** Analysis Date: **2/18/2020 03:55 PM**

Client ID: **S-13R 2-3'** Run ID: **GC14_200218A** SeqNo: **6259260** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	630.1	66	826.2	0	76.3	40-140	753	17.8	50	
Aroclor 1260	658.3	66	826.2	0	79.7	40-140	786.5	17.7	50	
Surr: Decachlorobiphenyl	*23.69*	0	*33.03*	0	*71.7*	*40-140*	28.93	*19.9*	*50*	
Surr: Tetrachloro-m-xylene	*25.74*	0	*33.03*	0	*77.9*	*45-124*	30.01	*15.3*	*50*	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152049** Instrument ID **GC14** Method: **SW8082**

The following samples were analyzed in this batch:

20021006-45B	20021006-46B	20021006-47B
20021006-48B	20021006-49B	20021006-50B
20021006-51B	20021006-52B	20021006-53B
20021006-54B	20021006-55B	20021006-56B
20021006-57B	20021006-58B	20021006-59B
20021006-60B	20021006-61B	20021006-62B
20021006-63B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152167** Instrument ID **GC14** Method: **SW8082**

MBLK Sample ID: **PBLKS1-152167-152167** Units: **µg/Kg** Analysis Date: **2/19/2020 07:10 PM**

Client ID: Run ID: **GC14_200219A** SeqNo: **6260459** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	67								
Aroclor 1221	ND	67								
Aroclor 1232	ND	67								
Aroclor 1242	ND	67								
Aroclor 1248	ND	67								
Aroclor 1254	ND	67								
Aroclor 1260	ND	67								
Aroclor 1262	ND	67								
Aroclor 1268	ND	67								
Surr: Decachlorobiphenyl	*31.85*	0	*33.3*	0	*95.6*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*27.66*	0	*33.3*	0	*83*	*45-124*	0			

LCS Sample ID: **PLCSS1-152167-152167** Units: **µg/Kg** Analysis Date: **2/19/2020 07:26 PM**

Client ID: Run ID: **GC14_200219A** SeqNo: **6260460** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	741.2	67	833	0	89	50-130	0			
Aroclor 1260	819.9	67	833	0	98.4	50-130	0			
Surr: Decachlorobiphenyl	*33.06*	0	*33.3*	0	*99.3*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*29.65*	0	*33.3*	0	*89*	*45-124*	0			

MS Sample ID: **20021006-79B MS** Units: **µg/Kg** Analysis Date: **2/19/2020 07:41 PM**

Client ID: **S-4 14-15'** Run ID: **GC14_200219A** SeqNo: **6260461** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	730.7	65	809.1	0	90.3	40-140	0			
Aroclor 1260	743.5	65	809.1	0	91.9	40-140	0			
Surr: Decachlorobiphenyl	*22.5*	0	*32.34*	0	*69.6*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*23.49*	0	*32.34*	0	*72.6*	*45-124*	0			

MSD Sample ID: **20021006-79B MSD** Units: **µg/Kg** Analysis Date: **2/19/2020 07:57 PM**

Client ID: **S-4 14-15'** Run ID: **GC14_200219A** SeqNo: **6260462** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	775.9	66	824.1	0	94.1	40-140	730.7	5.99	50	
Aroclor 1260	771.7	66	824.1	0	93.6	40-140	743.5	3.73	50	
Surr: Decachlorobiphenyl	*20.19*	0	*32.94*	0	*61.3*	*40-140*	22.5	*10.8*	*50*	
Surr: Tetrachloro-m-xylene	*23.74*	0	*32.94*	0	*72.1*	*45-124*	23.49	*1.04*	*50*	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152167** Instrument ID **GC14** Method: **SW8082**

The following samples were analyzed in this batch:

20021006-64B	20021006-65B	20021006-66B
20021006-67B	20021006-68B	20021006-69B
20021006-70B	20021006-71B	20021006-72B
20021006-73B	20021006-74B	20021006-75B
20021006-76B	20021006-77B	20021006-78B
20021006-79B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152194** Instrument ID **HG4** Method: **SW7471B**

MBLK Sample ID: **MBLK-152194-152194** Units: **mg/Kg** Analysis Date: **2/19/2020 05:42 PM**
Client ID: Run ID: **HG4_200219A** SeqNo: **6260163** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.020								

LCS Sample ID: **LCS-152194-152194** Units: **mg/Kg** Analysis Date: **2/19/2020 05:51 PM**
Client ID: Run ID: **HG4_200219A** SeqNo: **6260167** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1925	0.020	0.1665	0	116	80-120		0		

MS Sample ID: **20021039-01AMS** Units: **mg/Kg** Analysis Date: **2/19/2020 06:34 PM**
Client ID: Run ID: **HG4_200219A** SeqNo: **6260189** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1911	0.019	0.1559	0.03719	98.8	75-125		0		

MSD Sample ID: **20021039-01AMSD** Units: **mg/Kg** Analysis Date: **2/19/2020 06:36 PM**
Client ID: Run ID: **HG4_200219A** SeqNo: **6260190** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1916	0.019	0.1556	0.03719	99.2	75-125	0.1911	0.251	35	

The following samples were analyzed in this batch:

20021006-40B	20021006-41B	20021006-42B
20021006-43B	20021006-44B	20021006-45B
20021006-46B	20021006-47B	20021006-48B
20021006-49B	20021006-50B	20021006-51B
20021006-52B	20021006-53B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152242** Instrument ID **HG4** Method: **SW7471B**

MBLK Sample ID: **MBLK-152242-152242** Units: **mg/Kg** Analysis Date: **2/20/2020 02:41 PM**
Client ID: Run ID: **HG4_200220A** SeqNo: **6263272** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.020								

LCS Sample ID: **LCS-152242-152242** Units: **mg/Kg** Analysis Date: **2/20/2020 02:43 PM**
Client ID: Run ID: **HG4_200220A** SeqNo: **6263274** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1625	0.020	0.1665	0	97.6	80-120		0		

MS Sample ID: **20021006-60BMS** Units: **mg/Kg** Analysis Date: **2/20/2020 03:00 PM**
Client ID: **S-11R 9-10'** Run ID: **HG4_200220A** SeqNo: **6263290** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1327	0.015	0.1257	0.01716	92	75-125		0		

MSD Sample ID: **20021006-60BMSD** Units: **mg/Kg** Analysis Date: **2/20/2020 03:08 PM**
Client ID: **S-11R 9-10'** Run ID: **HG4_200220A** SeqNo: **6263298** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1512	0.015	0.1269	0.01716	106	75-125	0.1327	13	35	

The following samples were analyzed in this batch:

20021006-54B	20021006-55B	20021006-56B
20021006-57B	20021006-58B	20021006-59B
20021006-60B	20021006-61B	20021006-62B
20021006-63B	20021006-64B	20021006-65B
20021006-66B	20021006-67B	20021006-68B
20021006-69B	20021006-70B	20021006-71B
20021006-72B	20021006-73B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152243** Instrument ID **HG4** Method: **SW7471B**

MBLK Sample ID: **MBLK-152243-152243** Units: **mg/Kg** Analysis Date: **2/20/2020 03:46 PM**
Client ID: Run ID: **HG4_200220A** SeqNo: **6263331** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.020								

LCS Sample ID: **LCS-152243-152243** Units: **mg/Kg** Analysis Date: **2/20/2020 03:48 PM**
Client ID: Run ID: **HG4_200220A** SeqNo: **6263333** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1625	0.020	0.1665	0	97.6	80-120		0		

MS Sample ID: **20021006-77BMS** Units: **mg/Kg** Analysis Date: **2/20/2020 04:06 PM**
Client ID: **S-4 12-13'** Run ID: **HG4_200220A** SeqNo: **6263342** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1654	0.018	0.1509	0.03761	84.7	75-125		0		

MSD Sample ID: **20021006-77BMSD** Units: **mg/Kg** Analysis Date: **2/20/2020 04:08 PM**
Client ID: **S-4 12-13'** Run ID: **HG4_200220A** SeqNo: **6263343** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1652	0.018	0.1514	0.03761	84.3	75-125	0.1654	0.155	35	

The following samples were analyzed in this batch:

20021006-74B	20021006-75B	20021006-76B
20021006-77B	20021006-78B	20021006-79B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152508** Instrument ID **HG4** Method: **SW7470A**

MBLK Sample ID: **MBLK-152508-152508** Units: **mg/L** Analysis Date: **2/27/2020 01:43 PM**
Client ID: Run ID: **HG4_200227A** SeqNo: **6274751** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS Sample ID: **LCS-152508-152508** Units: **mg/L** Analysis Date: **2/27/2020 01:45 PM**
Client ID: Run ID: **HG4_200227A** SeqNo: **6274752** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00179	0.00020	0.002	0	89.5	80-120		0		

MS Sample ID: **20021006-32AMS** Units: **mg/L** Analysis Date: **2/27/2020 02:08 PM**
Client ID: **S-4 2-3' TCLP** Run ID: **HG4_200227A** SeqNo: **6274763** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0189	0.0020	0.02	0.00021	93.4	75-125		0		

MSD Sample ID: **20021006-32AMSD** Units: **mg/L** Analysis Date: **2/27/2020 02:10 PM**
Client ID: **S-4 2-3' TCLP** Run ID: **HG4_200227A** SeqNo: **6274764** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0188	0.0020	0.02	0.00021	93	75-125	0.0189	0.531	20	

The following samples were analyzed in this batch:

20021006-01A	20021006-02A	20021006-08A
20021006-20A	20021006-25A	20021006-26A
20021006-32A	20021006-33A	20021006-80A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152119** Instrument ID **ICPMS3** Method: **SW6020B**

MBLK Sample ID: **MBLK-152119-152119** Units: **mg/Kg** Analysis Date: **2/18/2020 07:25 PM**

Client ID: Run ID: **ICPMS3_200218B** SeqNo: **6256847** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.10								
Chromium	ND	0.25								
Copper	ND	0.25								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Thorium	ND	0.25								
Uranium	ND	0.25								
Zinc	ND	0.50								

LCS Sample ID: **LCS-152119-152119** Units: **mg/Kg** Analysis Date: **2/18/2020 07:27 PM**

Client ID: Run ID: **ICPMS3_200218B** SeqNo: **6256848** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.99	0.25	5	0	99.8	80-120	0			
Barium	5.521	0.25	5	0	110	80-120	0			
Cadmium	5.535	0.10	5	0	111	80-120	0			
Chromium	5.091	0.25	5	0	102	80-120	0			
Copper	5.011	0.25	5	0	100	80-120	0			
Lead	5.528	0.25	5	0	111	80-120	0			
Nickel	5.02	0.25	5	0	100	80-120	0			
Selenium	5.631	0.25	5	0	113	80-120	0			
Silver	5.191	0.25	5	0	104	80-120	0			
Thorium	5.116	0.25	5	0	102	80-120	0			
Uranium	4.97	0.25	5	0	99.4	80-120	0			
Zinc	5.002	0.50	5	0	100	80-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152119** Instrument ID **ICPMS3** Method: **SW6020B**

MS Sample ID: **20021062-04AMS** Units: **mg/Kg** Analysis Date: **2/18/2020 09:31 PM**

Client ID: Run ID: **ICPMS3_200218B** SeqNo: **6256924** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.704	0.38	7.519	3.234	86	75-125	0			
Barium	335.3	0.38	7.519	319.9	205	75-125	0			SEO
Cadmium	6.045	0.15	7.519	0.05329	79.7	75-125	0			
Chromium	37.79	0.38	7.519	26.47	151	75-125	0			S
Copper	11.7	0.38	7.519	6.838	64.7	75-125	0			S
Lead	15.29	0.38	7.519	8.205	94.3	75-125	0			
Nickel	16.79	0.38	7.519	11.23	73.9	75-125	0			S
Selenium	6.553	0.38	7.519	0.09936	85.8	75-125	0			
Silver	5.84	0.38	7.519	0.03563	77.2	75-125	0			
Thorium	11.79	0.38	7.519	4.956	90.9	75-125	0			
Uranium	7.892	0.38	7.519	1.109	90.2	75-125	0			
Zinc	33.45	0.75	7.519	29.82	48.4	75-125	0			S

MSD Sample ID: **20021062-04AMSD** Units: **mg/Kg** Analysis Date: **2/18/2020 09:32 PM**

Client ID: Run ID: **ICPMS3_200218B** SeqNo: **6256925** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.65	0.39	7.8	3.234	95.1	75-125	9.704	9.29	20	
Barium	342.2	0.39	7.8	319.9	286	75-125	335.3	2.04	20	SEO
Cadmium	6.471	0.16	7.8	0.05329	82.3	75-125	6.045	6.81	20	
Chromium	34.65	0.39	7.8	26.47	105	75-125	37.79	8.67	20	
Copper	12.55	0.39	7.8	6.838	73.2	75-125	11.7	6.98	20	S
Lead	15.98	0.39	7.8	8.205	99.7	75-125	15.29	4.43	20	
Nickel	17.09	0.39	7.8	11.23	75.2	75-125	16.79	1.8	20	
Selenium	6.707	0.39	7.8	0.09936	84.7	75-125	6.553	2.32	20	
Silver	6.251	0.39	7.8	0.03563	79.7	75-125	5.84	6.8	20	
Thorium	12.73	0.39	7.8	4.956	99.6	75-125	11.79	7.64	20	
Uranium	8.342	0.39	7.8	1.109	92.7	75-125	7.892	5.54	20	
Zinc	34.41	0.78	7.8	29.82	58.8	75-125	33.45	2.81	20	S

The following samples were analyzed in this batch:

20021006-40B	20021006-41B	20021006-42B
20021006-43B	20021006-44B	20021006-45B
20021006-46B	20021006-47B	20021006-48B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152124** Instrument ID **ICPMS3** Method: **SW6020B**

MBLK Sample ID: **MBLK-152124-152124** Units: **mg/Kg** Analysis Date: **2/18/2020 09:39 PM**

Client ID: Run ID: **ICPMS3_200218B** SeqNo: **6256929** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.10								
Chromium	ND	0.25								
Copper	ND	0.25								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Thorium	ND	0.25								
Uranium	ND	0.25								
Zinc	ND	0.50								

LCS Sample ID: **LCS-152124-152124** Units: **mg/Kg** Analysis Date: **2/18/2020 09:41 PM**

Client ID: Run ID: **ICPMS3_200218B** SeqNo: **6256930** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	5.081	0.25	5	0	102	80-120	0			
Barium	5.237	0.25	5	0	105	80-120	0			
Cadmium	4.896	0.10	5	0	97.9	80-120	0			
Chromium	4.735	0.25	5	0	94.7	80-120	0			
Copper	4.809	0.25	5	0	96.2	80-120	0			
Lead	5.224	0.25	5	0	104	80-120	0			
Nickel	4.802	0.25	5	0	96	80-120	0			
Selenium	5.13	0.25	5	0	103	80-120	0			
Silver	4.845	0.25	5	0	96.9	80-120	0			
Thorium	4.697	0.25	5	0	93.9	80-120	0			
Uranium	4.465	0.25	5	0	89.3	80-120	0			
Zinc	4.848	0.50	5	0	97	80-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152124** Instrument ID **ICPMS3** Method: **SW6020B**

MS Sample ID: **20021006-68BMS** Units: **mg/Kg** Analysis Date: **2/18/2020 11:01 PM**
Client ID: **S-3 10-11'** Run ID: **ICPMS3_200218B** SeqNo: **6256977** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	8.822	0.35	7.062	3.401	76.8	75-125	0			
Barium	71.15	0.35	7.062	65.58	78.9	75-125	0			O
Cadmium	4.997	0.14	7.062	0.0357	70.2	75-125	0			S
Chromium	19.73	0.35	7.062	14.44	74.9	75-125	0			S
Lead	16.92	0.35	7.062	10.6	89.6	75-125	0			
Nickel	21.36	0.35	7.062	17.91	48.8	75-125	0			S
Selenium	5.157	0.35	7.062	0.09783	71.6	75-125	0			S
Silver	4.98	0.35	7.062	0.02852	70.1	75-125	0			S
Thorium	10.21	0.35	7.062	3.741	91.6	75-125	0			
Uranium	7.477	0.35	7.062	0.8653	93.6	75-125	0			

MS Sample ID: **20021006-68BMS** Units: **mg/Kg** Analysis Date: **2/19/2020 05:46 PM**
Client ID: **S-3 10-11'** Run ID: **ICPMS3_200219B** SeqNo: **6261126** Prep Date: **2/18/2020** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	25.38	3.5	7.062	21.43	55.9	75-125	0			S
Zinc	51.94	7.1	7.062	42.47	134	75-125	0			SO

MSD Sample ID: **20021006-68BMSD** Units: **mg/Kg** Analysis Date: **2/18/2020 11:03 PM**
Client ID: **S-3 10-11'** Run ID: **ICPMS3_200218B** SeqNo: **6256978** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.874	0.37	7.407	3.401	87.4	75-125	8.822	11.3	20	
Barium	74.04	0.37	7.407	65.58	114	75-125	71.15	3.97	20	O
Cadmium	5.98	0.15	7.407	0.0357	80.2	75-125	4.997	17.9	20	
Chromium	22.31	0.37	7.407	14.44	106	75-125	19.73	12.2	20	
Lead	16.35	0.37	7.407	10.6	77.7	75-125	16.92	3.41	20	
Nickel	23.66	0.37	7.407	17.91	77.6	75-125	21.36	10.2	20	
Selenium	6.076	0.37	7.407	0.09783	80.7	75-125	5.157	16.4	20	
Silver	5.924	0.37	7.407	0.02852	79.6	75-125	4.98	17.3	20	
Thorium	11.59	0.37	7.407	3.741	106	75-125	10.21	12.6	20	
Uranium	8.074	0.37	7.407	0.8653	97.3	75-125	7.477	7.68	20	

MSD Sample ID: **20021006-68BMSD** Units: **mg/Kg** Analysis Date: **2/19/2020 05:48 PM**
Client ID: **S-3 10-11'** Run ID: **ICPMS3_200219B** SeqNo: **6261127** Prep Date: **2/18/2020** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	26.38	3.7	7.407	21.43	66.8	75-125	25.38	3.85	20	S
Zinc	51.59	7.4	7.407	42.47	123	75-125	51.94	0.674	20	O

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152124** Instrument ID **ICPMS3** Method: **SW6020B**

The following samples were analyzed in this batch:

20021006-49B	20021006-50B	20021006-51B
20021006-52B	20021006-53B	20021006-54B
20021006-55B	20021006-56B	20021006-57B
20021006-58B	20021006-59B	20021006-60B
20021006-61B	20021006-62B	20021006-63B
20021006-64B	20021006-65B	20021006-66B
20021006-67B	20021006-68B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152192** Instrument ID **ICPMS3** Method: **SW6020B**

MBLK Sample ID: **MBLK-152192-152192** Units: **mg/Kg** Analysis Date: **2/19/2020 07:03 PM**

Client ID: Run ID: **ICPMS3_200219B** SeqNo: **6261169** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.10								
Chromium	ND	0.25								
Copper	ND	0.25								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Thorium	ND	0.25								
Uranium	ND	0.25								
Zinc	ND	0.50								

LCS Sample ID: **LCS-152192-152192** Units: **mg/Kg** Analysis Date: **2/19/2020 07:04 PM**

Client ID: Run ID: **ICPMS3_200219B** SeqNo: **6261170** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	5.023	0.25	5	0	100	80-120	0			
Barium	4.825	0.25	5	0	96.5	80-120	0			
Cadmium	4.76	0.10	5	0	95.2	80-120	0			
Chromium	5.12	0.25	5	0	102	80-120	0			
Copper	5.148	0.25	5	0	103	80-120	0			
Lead	4.992	0.25	5	0	99.8	80-120	0			
Nickel	5.172	0.25	5	0	103	80-120	0			
Selenium	4.616	0.25	5	0	92.3	80-120	0			
Silver	5.284	0.25	5	0	106	80-120	0			
Thorium	4.437	0.25	5	0	88.7	80-120	0			
Uranium	4.308	0.25	5	0	86.2	80-120	0			
Zinc	4.905	0.50	5	0	98.1	80-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152192** Instrument ID **ICPMS3** Method: **SW6020B**

MS Sample ID: **20021020-06AMS** Units: **mg/Kg** Analysis Date: **2/19/2020 08:20 PM**
Client ID: Run ID: **ICPMS3_200219B** SeqNo: **6261225** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.759	0.35	7.062	3.123	94	75-125	0			
Barium	41.84	0.35	7.062	31.81	142	75-125	0			SO
Cadmium	6.7	0.14	7.062	0.1121	93.3	75-125	0			
Chromium	13.47	0.35	7.062	5.839	108	75-125	0			
Copper	11.32	0.35	7.062	4.806	92.2	75-125	0			
Lead	12.74	0.35	7.062	5.191	107	75-125	0			
Nickel	12.78	0.35	7.062	5.953	96.7	75-125	0			
Silver	6.687	0.35	7.062	0.01239	94.5	75-125	0			
Thorium	6.944	0.35	7.062	1.092	82.9	75-125	0			
Uranium	6.916	0.35	7.062	0.2329	94.6	75-125	0			
Zinc	27.87	0.71	7.062	18.13	138	75-125	0			S

MS Sample ID: **20021020-06AMS** Units: **mg/Kg** Analysis Date: **2/20/2020 06:25 PM**
Client ID: Run ID: **ICPMS3_200220B** SeqNo: **6263012** Prep Date: **2/19/2020** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	7.626	3.5	7.062	0.9341	94.8	75-125	0			

MSD Sample ID: **20021020-06AMSD** Units: **mg/Kg** Analysis Date: **2/19/2020 08:22 PM**
Client ID: Run ID: **ICPMS3_200219B** SeqNo: **6261226** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.527	0.37	7.496	3.123	85.4	75-125	9.759	2.4	20	
Barium	40.78	0.37	7.496	31.81	120	75-125	41.84	2.56	20	O
Cadmium	6.932	0.15	7.496	0.1121	91	75-125	6.7	3.41	20	
Chromium	13.95	0.37	7.496	5.839	108	75-125	13.47	3.51	20	
Copper	11.16	0.37	7.496	4.806	84.7	75-125	11.32	1.45	20	
Lead	12.25	0.37	7.496	5.191	94.2	75-125	12.74	3.95	20	
Nickel	12.63	0.37	7.496	5.953	89.1	75-125	12.78	1.19	20	
Silver	6.874	0.37	7.496	0.01239	91.5	75-125	6.687	2.76	20	
Thorium	7.228	0.37	7.496	1.092	81.9	75-125	6.944	4.01	20	
Uranium	7.066	0.37	7.496	0.2329	91.1	75-125	6.916	2.14	20	
Zinc	27.22	0.75	7.496	18.13	121	75-125	27.87	2.35	20	

MSD Sample ID: **20021020-06AMSD** Units: **mg/Kg** Analysis Date: **2/20/2020 06:26 PM**
Client ID: Run ID: **ICPMS3_200220B** SeqNo: **6263013** Prep Date: **2/19/2020** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	7.58	3.7	7.496	0.9341	88.7	75-125	7.626	0.605	20	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152192** Instrument ID **ICPMS3** Method: **SW6020B**

The following samples were analyzed in this batch:

20021006-69B	20021006-70B	20021006-71B
20021006-72B	20021006-73B	20021006-74B
20021006-75B	20021006-76B	20021006-77B
20021006-78B	20021006-79B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152584** Instrument ID **ICPMS3** Method: **SW6020B**

MBLK Sample ID: **MBLK-152584-152584** Units: **mg/L** Analysis Date: **2/27/2020 09:32 PM**
Client ID: Run ID: **ICPMS3_200227A** SeqNo: **6276681** Prep Date: **2/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cadmium	ND	0.0020								
Chromium	0.001113	0.0050								J
Lead	ND	0.0050								

LCS Sample ID: **LCS-152584-152584** Units: **mg/L** Analysis Date: **2/27/2020 09:34 PM**
Client ID: Run ID: **ICPMS3_200227A** SeqNo: **6276682** Prep Date: **2/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cadmium	0.1003	0.0020	0.1	0	100	80-120	0			
Chromium	0.1005	0.0050	0.1	0	100	80-120	0			
Lead	0.09916	0.0050	0.1	0	99.2	80-120	0			

MS Sample ID: **20021006-01AMS** Units: **mg/L** Analysis Date: **2/27/2020 09:40 PM**
Client ID: **S-7 2-3' TCLP** Run ID: **ICPMS3_200227A** SeqNo: **6276686** Prep Date: **2/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cadmium	1.004	0.020	1	0.01778	98.6	80-120	0			
Chromium	1.006	0.050	1	0.01954	98.6	80-120	0			
Lead	1.258	0.050	1	0.2717	98.7	80-120	0			

MSD Sample ID: **20021006-01AMSD** Units: **mg/L** Analysis Date: **2/27/2020 09:42 PM**
Client ID: **S-7 2-3' TCLP** Run ID: **ICPMS3_200227A** SeqNo: **6276687** Prep Date: **2/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cadmium	1.029	0.020	1	0.01778	101	80-120	1.004	2.47	20	
Chromium	1.028	0.050	1	0.01954	101	80-120	1.006	2.19	20	
Lead	1.279	0.050	1	0.2717	101	80-120	1.258	1.63	20	

The following samples were analyzed in this batch:

20021006-01A	20021006-02A	20021006-08A
20021006-20A	20021006-25A	20021006-26A
20021006-32A	20021006-33A	20021006-80A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152073** Instrument ID **SVMS6** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-152073-152073** Units: **µg/Kg** Analysis Date: **2/19/2020 06:18 PM**

Client ID: Run ID: **SVMS6_200219B** SeqNo: **6260637** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	4.2								
2-Chloronaphthalene	ND	4.2								
2-Methylnaphthalene	ND	4.2								
Acenaphthene	ND	4.2								
Acenaphthylene	ND	4.2								
Anthracene	ND	4.2								
Benzo(a)anthracene	ND	4.2								
Benzo(a)pyrene	ND	4.2								
Benzo(b)fluoranthene	ND	4.2								
Benzo(g,h,i)perylene	ND	4.2								
Benzo(k)fluoranthene	ND	4.2								
Chrysene	ND	4.2								
Dibenzo(a,h)anthracene	ND	4.2								
Fluoranthene	ND	4.2								
Fluorene	ND	4.2								
Indeno(1,2,3-cd)pyrene	ND	4.2								
Naphthalene	ND	4.2								
Phenanthrene	ND	4.2								
Pyrene	ND	4.2								
Surr: 2-Fluorobiphenyl	*2977*	0	*3333*	0	*89.3*	*20-140*	0			
Surr: 4-Terphenyl-d14	*3080*	0	*3333*	0	*92.4*	*22-172*	0			
Surr: Nitrobenzene-d5	*2869*	0	*3333*	0	*86.1*	*28-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152073** Instrument ID **SVMS6** Method: **SW846 8270D**

LCS Sample ID: **SLCSS1-152073-152073** Units: **µg/Kg** Analysis Date: **2/19/2020 06:33 PM**

Client ID: Run ID: **SVMS6_200219B** SeqNo: **6260638** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1239	4.1	1320	0	93.9	40-140	0			
2-Chloronaphthalene	1238	4.1	1320	0	93.8	40-140	0			
2-Methylnaphthalene	1297	4.1	1320	0	98.3	40-140	0			
Acenaphthene	1183	4.1	1320	0	89.7	40-140	0			
Acenaphthylene	1191	4.1	1320	0	90.2	40-140	0			
Anthracene	1285	4.1	1320	0	97.4	40-140	0			
Benzo(a)anthracene	1145	4.1	1320	0	86.7	40-140	0			
Benzo(a)pyrene	1078	4.1	1320	0	81.7	40-140	0			
Benzo(b)fluoranthene	1054	4.1	1320	0	79.9	40-140	0			
Benzo(g,h,i)perylene	1192	4.1	1320	0	90.3	40-140	0			
Benzo(k)fluoranthene	1088	4.1	1320	0	82.5	40-140	0			
Chrysene	1150	4.1	1320	0	87.1	40-140	0			
Dibenzo(a,h)anthracene	1115	4.1	1320	0	84.5	40-140	0			
Fluoranthene	1240	4.1	1320	0	94	40-140	0			
Fluorene	1233	4.1	1320	0	93.5	40-140	0			
Indeno(1,2,3-cd)pyrene	1190	4.1	1320	0	90.1	40-140	0			
Naphthalene	1250	4.1	1320	0	94.7	40-140	0			
Phenanthrene	1243	4.1	1320	0	94.2	40-140	0			
Pyrene	1144	4.1	1320	0	86.7	40-140	0			
Surr: 2-Fluorobiphenyl	*3207*	0	*3300*	0	*97.2*	*20-140*	0			
Surr: 4-Terphenyl-d14	*3270*	0	*3300*	0	*99.1*	*22-172*	0			
Surr: Nitrobenzene-d5	*2716*	0	*3300*	0	*82.3*	*28-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152073** Instrument ID **SVMS6** Method: **SW846 8270D**

MS Sample ID: **20021006-78B MS** Units: **µg/Kg** Analysis Date: **2/19/2020 06:49 PM**

Client ID: **S-4 13-14'** Run ID: **SVMS6_200219B** SeqNo: **6260640** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1303	4.1	1302	7.402	99.5	40-140	0			
2-Chloronaphthalene	1280	4.1	1302	0	98.3	40-140	0			
2-Methylnaphthalene	1344	4.1	1302	3.441	103	40-140	0			
Acenaphthene	1234	4.1	1302	18.21	93.4	40-140	0			
Acenaphthylene	1238	4.1	1302	0	95	40-140	0			
Anthracene	1314	4.1	1302	14.59	99.8	40-140	0			
Benzo(a)anthracene	1186	4.1	1302	9.804	90.3	40-140	0			
Benzo(a)pyrene	1108	4.1	1302	5.665	84.6	40-140	0			
Benzo(b)fluoranthene	1092	4.1	1302	7.126	83.3	40-140	0			
Benzo(g,h,i)perylene	1136	4.1	1302	4.35	86.9	40-140	0			
Benzo(k)fluoranthene	1132	4.1	1302	0	86.9	40-140	0			
Chrysene	1185	4.1	1302	7.807	90.4	40-140	0			
Dibenzo(a,h)anthracene	1102	4.1	1302	3.49	84.4	40-140	0			
Fluoranthene	1254	4.1	1302	23.08	94.5	40-140	0			
Fluorene	1276	4.1	1302	10.08	97.2	40-140	0			
Indeno(1,2,3-cd)pyrene	1154	4.1	1302	3.052	88.4	40-140	0			
Naphthalene	1322	4.1	1302	0	101	40-140	0			
Phenanthrene	1282	4.1	1302	39.13	95.4	40-140	0			
Pyrene	1210	4.1	1302	27.42	90.8	40-140	0			
Surr: 2-Fluorobiphenyl	*3306*	0	*3257*	0	*102*	*20-140*	0			
Surr: 4-Terphenyl-d14	*3283*	0	*3257*	0	*101*	*22-172*	0			
Surr: Nitrobenzene-d5	*2949*	0	*3257*	0	*90.6*	*28-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152073** Instrument ID **SVMS6** Method: **SW846 8270D**

MSD Sample ID: **20021006-78B MSD** Units: **µg/Kg** Analysis Date: **2/19/2020 07:04 PM**

Client ID: **S-4 13-14'** Run ID: **SVMS6_200219B** SeqNo: **6260641** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1276	4.2	1333	7.402	95.1	40-140	1303	2.16	30	
2-Chloronaphthalene	1262	4.2	1333	0	94.7	40-140	1280	1.43	30	
2-Methylnaphthalene	1344	4.2	1333	3.441	101	40-140	1344	0.0385	30	
Acenaphthene	1206	4.2	1333	18.21	89.1	40-140	1234	2.37	30	
Acenaphthylene	1221	4.2	1333	0	91.6	40-140	1238	1.37	30	
Anthracene	1295	4.2	1333	14.59	96	40-140	1314	1.48	30	
Benzo(a)anthracene	1196	4.2	1333	9.804	89	40-140	1186	0.852	30	
Benzo(a)pyrene	1112	4.2	1333	5.665	83	40-140	1108	0.357	30	
Benzo(b)fluoranthene	1085	4.2	1333	7.126	80.9	40-140	1092	0.631	30	
Benzo(g,h,i)perylene	1154	4.2	1333	4.35	86.2	40-140	1136	1.55	30	
Benzo(k)fluoranthene	1147	4.2	1333	0	86.1	40-140	1132	1.33	30	
Chrysene	1182	4.2	1333	7.807	88.1	40-140	1185	0.252	30	
Dibenzo(a,h)anthracene	1120	4.2	1333	3.49	83.7	40-140	1102	1.58	30	
Fluoranthene	1235	4.2	1333	23.08	90.9	40-140	1254	1.59	30	
Fluorene	1243	4.2	1333	10.08	92.5	40-140	1276	2.64	30	
Indeno(1,2,3-cd)pyrene	1169	4.2	1333	3.052	87.5	40-140	1154	1.25	30	
Naphthalene	1305	4.2	1333	0	97.9	40-140	1322	1.28	30	
Phenanthrene	1251	4.2	1333	39.13	90.9	40-140	1282	2.4	30	
Pyrene	1193	4.2	1333	27.42	87.4	40-140	1210	1.4	30	
Surr: 2-Fluorobiphenyl	*3231*	0	*3333*	0	*96.9*	*20-140*	3306	*2.32*	*0*	
Surr: 4-Terphenyl-d14	*3319*	0	*3333*	0	*99.6*	*22-172*	3283	*1.1*	*0*	
Surr: Nitrobenzene-d5	*2899*	0	*3333*	0	*87*	*28-140*	2949	*1.71*	*0*	

The following samples were analyzed in this batch:

20021006-59B	20021006-60B	20021006-61B
20021006-62B	20021006-63B	20021006-64B
20021006-65B	20021006-66B	20021006-67B
20021006-68B	20021006-69B	20021006-70B
20021006-71B	20021006-72B	20021006-73B
20021006-74B	20021006-75B	20021006-76B
20021006-77B	20021006-78B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152166** Instrument ID **SVMS6** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-152166-152166** Units: **µg/Kg** Analysis Date: **2/20/2020 11:27 AM**

Client ID: Run ID: **SVMS6_200220A** SeqNo: **6262306** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	4.2								
2-Chloronaphthalene	ND	4.2								
2-Methylnaphthalene	ND	4.2								
Acenaphthene	ND	4.2								
Acenaphthylene	ND	4.2								
Anthracene	ND	4.2								
Benzo(a)anthracene	ND	4.2								
Benzo(a)pyrene	ND	4.2								
Benzo(b)fluoranthene	ND	4.2								
Benzo(g,h,i)perylene	ND	4.2								
Benzo(k)fluoranthene	ND	4.2								
Chrysene	ND	4.2								
Dibenzo(a,h)anthracene	ND	4.2								
Fluoranthene	ND	4.2								
Fluorene	ND	4.2								
Indeno(1,2,3-cd)pyrene	ND	4.2								
Naphthalene	ND	4.2								
Phenanthrene	ND	4.2								
Pyrene	ND	4.2								
Surr: 2-Fluorobiphenyl	*3554*	0	*3333*	0	*107*	*20-140*	0			
Surr: 4-Terphenyl-d14	*3940*	0	*3333*	0	*118*	*22-172*	0			
Surr: Nitrobenzene-d5	*4024*	0	*3333*	0	*121*	*28-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152166** Instrument ID **SVMS6** Method: **SW846 8270D**

LCS Sample ID: **SLCSS1-152166-152166** Units: **µg/Kg** Analysis Date: **2/20/2020 12:44 PM**

Client ID: Run ID: **SVMS6_200220A** SeqNo: **6262311** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1388	4.2	1333	0	104	40-140	0			
2-Chloronaphthalene	1457	4.2	1333	0	109	40-140	0			
2-Methylnaphthalene	1516	4.2	1333	0	114	40-140	0			
Acenaphthene	1355	4.2	1333	0	102	40-140	0			
Acenaphthylene	1346	4.2	1333	0	101	40-140	0			
Anthracene	1514	4.2	1333	0	114	40-140	0			
Benzo(a)anthracene	1482	4.2	1333	0	111	40-140	0			
Benzo(a)pyrene	1356	4.2	1333	0	102	40-140	0			
Benzo(b)fluoranthene	1381	4.2	1333	0	104	40-140	0			
Benzo(g,h,i)perylene	1373	4.2	1333	0	103	40-140	0			
Benzo(k)fluoranthene	1423	4.2	1333	0	107	40-140	0			
Chrysene	1383	4.2	1333	0	104	40-140	0			
Dibenzo(a,h)anthracene	1328	4.2	1333	0	99.6	40-140	0			
Fluoranthene	1533	4.2	1333	0	115	40-140	0			
Fluorene	1480	4.2	1333	0	111	40-140	0			
Indeno(1,2,3-cd)pyrene	1475	4.2	1333	0	111	40-140	0			
Naphthalene	1503	4.2	1333	0	113	40-140	0			
Phenanthrene	1406	4.2	1333	0	105	40-140	0			
Pyrene	1486	4.2	1333	0	111	40-140	0			
Surr: 2-Fluorobiphenyl	*3514*	0	*3333*	0	*105*	*20-140*	0			
Surr: 4-Terphenyl-d14	*3802*	0	*3333*	0	*114*	*22-172*	0			
Surr: Nitrobenzene-d5	*3959*	0	*3333*	0	*119*	*28-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152166** Instrument ID **SVMS6** Method: **SW846 8270D**

MS Sample ID: **20021185-04A MS** Units: **µg/Kg** Analysis Date: **2/21/2020 12:10 PM**

Client ID: Run ID: **SVMS6_200220A** SeqNo: **6263917** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1322	4.1	1318	0	100	40-140	0			
2-Chloronaphthalene	1327	4.1	1318	0	101	40-140	0			
2-Methylnaphthalene	1443	4.1	1318	0	109	40-140	0			
Acenaphthene	1287	4.1	1318	0	97.6	40-140	0			
Acenaphthylene	1309	4.1	1318	0	99.3	40-140	0			
Anthracene	1337	4.1	1318	0	101	40-140	0			
Benzo(a)anthracene	1349	4.1	1318	0	102	40-140	0			
Benzo(a)pyrene	1256	4.1	1318	2.56	95.1	40-140	0			
Benzo(b)fluoranthene	1259	4.1	1318	3.254	95.3	40-140	0			
Benzo(g,h,i)perylene	1095	4.1	1318	0	83.1	40-140	0			
Benzo(k)fluoranthene	1311	4.1	1318	0	99.5	40-140	0			
Chrysene	1291	4.1	1318	0	98	40-140	0			
Dibenzo(a,h)anthracene	1080	4.1	1318	0	81.9	40-140	0			
Fluoranthene	1224	4.1	1318	2.924	92.7	40-140	0			
Fluorene	1317	4.1	1318	0	99.9	40-140	0			
Indeno(1,2,3-cd)pyrene	1211	4.1	1318	0	91.9	40-140	0			
Naphthalene	1449	4.1	1318	0	110	40-140	0			
Phenanthrene	1306	4.1	1318	0	99	40-140	0			
Pyrene	1133	4.1	1318	2.263	85.8	40-140	0			
Surr: 2-Fluorobiphenyl	*3203*	0	*3296*	0	*97.2*	*20-140*	0			
Surr: 4-Terphenyl-d14	*3000*	0	*3296*	0	*91*	*22-172*	0			
Surr: Nitrobenzene-d5	*3705*	0	*3296*	0	*112*	*28-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152166** Instrument ID **SVMS6** Method: **SW846 8270D**

MSD Sample ID: **20021185-04A MSD** Units: **µg/Kg** Analysis Date: **2/21/2020 12:25 PM**

Client ID: Run ID: **SVMS6_200220A** SeqNo: **6263918** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1350	4.1	1313	0	103	40-140	1322	2.09	30	
2-Chloronaphthalene	1356	4.1	1313	0	103	40-140	1327	2.19	30	
2-Methylnaphthalene	1462	4.1	1313	0	111	40-140	1443	1.35	30	
Acenaphthene	1313	4.1	1313	0	100	40-140	1287	1.98	30	
Acenaphthylene	1332	4.1	1313	0	101	40-140	1309	1.75	30	
Anthracene	1358	4.1	1313	0	103	40-140	1337	1.55	30	
Benzo(a)anthracene	1384	4.1	1313	0	105	40-140	1349	2.58	30	
Benzo(a)pyrene	1296	4.1	1313	2.56	98.5	40-140	1256	3.14	30	
Benzo(b)fluoranthene	1328	4.1	1313	3.254	101	40-140	1259	5.33	30	
Benzo(g,h,i)perylene	1133	4.1	1313	0	86.3	40-140	1095	3.44	30	
Benzo(k)fluoranthene	1340	4.1	1313	0	102	40-140	1311	2.17	30	
Chrysene	1322	4.1	1313	0	101	40-140	1291	2.32	30	
Dibenzo(a,h)anthracene	1115	4.1	1313	0	84.9	40-140	1080	3.23	30	
Fluoranthene	1189	4.1	1313	2.924	90.4	40-140	1224	2.9	30	
Fluorene	1336	4.1	1313	0	102	40-140	1317	1.4	30	
Indeno(1,2,3-cd)pyrene	1225	4.1	1313	0	93.3	40-140	1211	1.16	30	
Naphthalene	1476	4.1	1313	0	112	40-140	1449	1.84	30	
Phenanthrene	1341	4.1	1313	0	102	40-140	1306	2.69	30	
Pyrene	1121	4.1	1313	2.263	85.2	40-140	1133	1.13	30	
Surr: 2-Fluorobiphenyl	*3284*	0	*3282*	0	*100*	*20-140*	3203	*2.5*	*0*	
Surr: 4-Terphenyl-d14	*3120*	0	*3282*	0	*95*	*22-172*	3000	*3.93*	*0*	
Surr: Nitrobenzene-d5	*3810*	0	*3282*	0	*116*	*28-140*	3705	*2.79*	*0*	

The following samples were analyzed in this batch: 20021006-79B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152195** Instrument ID **SVMS6** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-152195-152195** Units: **µg/Kg** Analysis Date: **2/19/2020 11:12 PM**

Client ID: Run ID: **SVMS6_200219B** SeqNo: **6260660** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	4.2								
2-Chloronaphthalene	ND	4.2								
2-Methylnaphthalene	ND	4.2								
Acenaphthene	ND	4.2								
Acenaphthylene	ND	4.2								
Anthracene	ND	4.2								
Benzo(a)anthracene	ND	4.2								
Benzo(a)pyrene	ND	4.2								
Benzo(b)fluoranthene	ND	4.2								
Benzo(g,h,i)perylene	ND	4.2								
Benzo(k)fluoranthene	ND	4.2								
Chrysene	ND	4.2								
Dibenzo(a,h)anthracene	ND	4.2								
Fluoranthene	ND	4.2								
Fluorene	ND	4.2								
Indeno(1,2,3-cd)pyrene	ND	4.2								
Naphthalene	ND	4.2								
Phenanthrene	ND	4.2								
Pyrene	ND	4.2								
Surr: 2-Fluorobiphenyl	*3112*	0	*3333*	0	*93.4*	*20-140*	0			
Surr: 4-Terphenyl-d14	*3078*	0	*3333*	0	*92.4*	*22-172*	0			
Surr: Nitrobenzene-d5	*2871*	0	*3333*	0	*86.2*	*28-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152195** Instrument ID **SVMS6** Method: **SW846 8270D**

LCS Sample ID: **SLCSS1-152195-152195** Units: **µg/Kg** Analysis Date: **2/19/2020 11:28 PM**

Client ID: Run ID: **SVMS6_200219B** SeqNo: **6260661** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1282	4.2	1333	0	96.2	40-140	0			
2-Chloronaphthalene	1270	4.2	1333	0	95.3	40-140	0			
2-Methylnaphthalene	1337	4.2	1333	0	100	40-140	0			
Acenaphthene	1203	4.2	1333	0	90.2	40-140	0			
Acenaphthylene	1228	4.2	1333	0	92.1	40-140	0			
Anthracene	1305	4.2	1333	0	97.9	40-140	0			
Benzo(a)anthracene	1281	4.2	1333	0	96.1	40-140	0			
Benzo(a)pyrene	1259	4.2	1333	0	94.4	40-140	0			
Benzo(b)fluoranthene	1279	4.2	1333	0	95.9	40-140	0			
Benzo(g,h,i)perylene	1229	4.2	1333	0	92.2	40-140	0			
Benzo(k)fluoranthene	1228	4.2	1333	0	92.1	40-140	0			
Chrysene	1258	4.2	1333	0	94.4	40-140	0			
Dibenzo(a,h)anthracene	1186	4.2	1333	0	89	40-140	0			
Fluoranthene	1293	4.2	1333	0	97	40-140	0			
Fluorene	1236	4.2	1333	0	92.7	40-140	0			
Indeno(1,2,3-cd)pyrene	1316	4.2	1333	0	98.7	40-140	0			
Naphthalene	1293	4.2	1333	0	97	40-140	0			
Phenanthrene	1264	4.2	1333	0	94.8	40-140	0			
Pyrene	971.3	4.2	1333	0	72.9	40-140	0			
Surr: 2-Fluorobiphenyl	*3264*	0	*3333*	0	*97.9*	*20-140*	0			
Surr: 4-Terphenyl-d14	*2880*	0	*3333*	0	*86.4*	*22-172*	0			
Surr: Nitrobenzene-d5	*2778*	0	*3333*	0	*83.3*	*28-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152195** Instrument ID **SVMS6** Method: **SW846 8270D**

MS Sample ID: **20020850-24B MS** Units: **µg/Kg** Analysis Date: **2/19/2020 11:43 PM**

Client ID: Run ID: **SVMS6_200219B** SeqNo: **6260662** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1278	4.1	1295	12.76	97.7	40-140	0			
2-Chloronaphthalene	1290	4.1	1295	0	99.6	40-140	0			
2-Methylnaphthalene	1387	4.1	1295	0	107	40-140	0			
Acenaphthene	1302	4.1	1295	11.01	99.7	40-140	0			
Acenaphthylene	1287	4.1	1295	0	99.4	40-140	0			
Anthracene	1659	4.1	1295	10.16	127	40-140	0			
Benzo(a)anthracene	1506	4.1	1295	13.01	115	40-140	0			
Benzo(a)pyrene	1285	4.1	1295	10.06	98.5	40-140	0			
Benzo(b)fluoranthene	1375	4.1	1295	11.23	105	40-140	0			
Benzo(g,h,i)perylene	1135	4.1	1295	4.621	87.3	40-140	0			
Benzo(k)fluoranthene	1202	4.1	1295	3.927	92.5	40-140	0			
Chrysene	1374	4.1	1295	15.31	105	40-140	0			
Dibenzo(a,h)anthracene	1130	4.1	1295	0	87.3	40-140	0			
Fluoranthene	1915	4.1	1295	28.31	146	40-140	0			S
Fluorene	1475	4.1	1295	7.381	113	40-140	0			
Indeno(1,2,3-cd)pyrene	1247	4.1	1295	4.81	95.9	40-140	0			
Naphthalene	1350	4.1	1295	0	104	40-140	0			
Phenanthrene	2111	4.1	1295	23.97	161	40-140	0			S
Pyrene	1306	4.1	1295	24.23	99	40-140	0			
Surr: 2-Fluorobiphenyl	*3332*	0	*3237*	0	*103*	*20-140*	0			
Surr: 4-Terphenyl-d14	*2866*	0	*3237*	0	*88.5*	*22-172*	0			
Surr: Nitrobenzene-d5	*2860*	0	*3237*	0	*88.3*	*28-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152195** Instrument ID **SVMS6** Method: **SW846 8270D**

MSD Sample ID: **20020850-24B MSD** Units: **µg/Kg** Analysis Date: **2/19/2020 11:59 PM**

Client ID: Run ID: **SVMS6_200219B** SeqNo: **6260663** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1071	4.0	1284	12.76	82.4	40-140	1278	17.6	30	
2-Chloronaphthalene	1109	4.0	1284	0	86.4	40-140	1290	15.1	30	
2-Methylnaphthalene	1184	4.0	1284	0	92.2	40-140	1387	15.8	30	
Acenaphthene	1072	4.0	1284	11.01	82.7	40-140	1302	19.4	30	
Acenaphthylene	1072	4.0	1284	0	83.6	40-140	1287	18.2	30	
Anthracene	1178	4.0	1284	10.16	91	40-140	1659	34	30	R
Benzo(a)anthracene	1170	4.0	1284	13.01	90.1	40-140	1506	25.2	30	
Benzo(a)pyrene	1075	4.0	1284	10.06	83	40-140	1285	17.8	30	
Benzo(b)fluoranthene	1093	4.0	1284	11.23	84.3	40-140	1375	22.9	30	
Benzo(g,h,i)perylene	960.6	4.0	1284	4.621	74.5	40-140	1135	16.7	30	
Benzo(k)fluoranthene	1034	4.0	1284	3.927	80.2	40-140	1202	15.1	30	
Chrysene	1119	4.0	1284	15.31	86	40-140	1374	20.5	30	
Dibenzo(a,h)anthracene	958.2	4.0	1284	0	74.7	40-140	1130	16.4	30	
Fluoranthene	1200	4.0	1284	28.31	91.3	40-140	1915	46	30	R
Fluorene	1091	4.0	1284	7.381	84.4	40-140	1475	30	30	
Indeno(1,2,3-cd)pyrene	1056	4.0	1284	4.81	81.9	40-140	1247	16.6	30	
Naphthalene	1148	4.0	1284	0	89.5	40-140	1350	16.1	30	
Phenanthrene	1140	4.0	1284	23.97	86.9	40-140	2111	59.7	30	R
Pyrene	918	4.0	1284	24.23	69.6	40-140	1306	34.9	30	R
Surr: 2-Fluorobiphenyl	*2978*	0	*3209*	0	*92.8*	*20-140*	3332	*11.2*	*0*	
Surr: 4-Terphenyl-d14	*2641*	0	*3209*	0	*82.3*	*22-172*	2866	*8.17*	*0*	
Surr: Nitrobenzene-d5	*2565*	0	*3209*	0	*79.9*	*28-140*	2860	*10.9*	*0*	

The following samples were analyzed in this batch: 20021006-40B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152201** Instrument ID **SVMS6** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-152201-152201** Units: **µg/Kg** Analysis Date: **2/20/2020 11:11 AM**

Client ID: Run ID: **SVMS6_200220A** SeqNo: **6262305** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	4.2								
2-Chloronaphthalene	ND	4.2								
2-Methylnaphthalene	ND	4.2								
Acenaphthene	ND	4.2								
Acenaphthylene	ND	4.2								
Anthracene	ND	4.2								
Benzo(a)anthracene	ND	4.2								
Benzo(a)pyrene	ND	4.2								
Benzo(b)fluoranthene	ND	4.2								
Benzo(g,h,i)perylene	ND	4.2								
Benzo(k)fluoranthene	ND	4.2								
Chrysene	ND	4.2								
Dibenzo(a,h)anthracene	ND	4.2								
Fluoranthene	ND	4.2								
Fluorene	ND	4.2								
Indeno(1,2,3-cd)pyrene	ND	4.2								
Naphthalene	ND	4.2								
Phenanthrene	ND	4.2								
Pyrene	ND	4.2								
Surr: 2-Fluorobiphenyl	*3002*	0	*3333*	0	*90.1*	*20-140*	0			
Surr: 4-Terphenyl-d14	*3440*	0	*3333*	0	*103*	*22-172*	0			
Surr: Nitrobenzene-d5	*3441*	0	*3333*	0	*103*	*28-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152201** Instrument ID **SVMS6** Method: **SW846 8270D**

LCS Sample ID: **SLCSS1-152201-152201** Units: **µg/Kg** Analysis Date: **2/20/2020 12:59 PM**

Client ID: Run ID: **SVMS6_200220A** SeqNo: **6262312** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1146	4.2	1333	0	86	40-140	0			
2-Chloronaphthalene	1240	4.2	1333	0	93	40-140	0			
2-Methylnaphthalene	1281	4.2	1333	0	96.1	40-140	0			
Acenaphthene	1108	4.2	1333	0	83.1	40-140	0			
Acenaphthylene	1216	4.2	1333	0	91.2	40-140	0			
Anthracene	1198	4.2	1333	0	89.8	40-140	0			
Benzo(a)anthracene	1180	4.2	1333	0	88.5	40-140	0			
Benzo(a)pyrene	1136	4.2	1333	0	85.2	40-140	0			
Benzo(b)fluoranthene	1134	4.2	1333	0	85.1	40-140	0			
Benzo(g,h,i)perylene	1104	4.2	1333	0	82.8	40-140	0			
Benzo(k)fluoranthene	1158	4.2	1333	0	86.9	40-140	0			
Chrysene	1126	4.2	1333	0	84.5	40-140	0			
Dibenzo(a,h)anthracene	1068	4.2	1333	0	80.1	40-140	0			
Fluoranthene	1190	4.2	1333	0	89.3	40-140	0			
Fluorene	1249	4.2	1333	0	93.7	40-140	0			
Indeno(1,2,3-cd)pyrene	1225	4.2	1333	0	91.9	40-140	0			
Naphthalene	1231	4.2	1333	0	92.3	40-140	0			
Phenanthrene	1143	4.2	1333	0	85.8	40-140	0			
Pyrene	1219	4.2	1333	0	91.5	40-140	0			
Surr: 2-Fluorobiphenyl	*3180*	0	*3333*	0	*95.4*	*20-140*	0			
Surr: 4-Terphenyl-d14	*3431*	0	*3333*	0	*103*	*22-172*	0			
Surr: Nitrobenzene-d5	*3593*	0	*3333*	0	*108*	*28-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152201** Instrument ID **SVMS6** Method: **SW846 8270D**

MS Sample ID: **20021006-55B MS** Units: **µg/Kg** Analysis Date: **2/20/2020 01:15 PM**

Client ID: **S-6 16-17'** Run ID: **SVMS6_200220A** SeqNo: **6262313** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1209	4.2	1329	2.216	90.8	40-140	0			
2-Chloronaphthalene	1213	4.2	1329	0	91.3	40-140	0			
2-Methylnaphthalene	1429	4.2	1329	3.187	107	40-140	0			
Acenaphthene	1227	4.2	1329	0	92.3	40-140	0			
Acenaphthylene	1252	4.2	1329	0	94.2	40-140	0			
Anthracene	1256	4.2	1329	2.346	94.3	40-140	0			
Benzo(a)anthracene	1235	4.2	1329	5.047	92.6	40-140	0			
Benzo(a)pyrene	1127	4.2	1329	3.898	84.5	40-140	0			
Benzo(b)fluoranthene	1113	4.2	1329	6.147	83.3	40-140	0			
Benzo(g,h,i)perylene	1057	4.2	1329	6.697	79	40-140	0			
Benzo(k)fluoranthene	1131	4.2	1329	0	85.2	40-140	0			
Chrysene	1158	4.2	1329	3.818	86.9	40-140	0			
Dibenzo(a,h)anthracene	1061	4.2	1329	0	79.9	40-140	0			
Fluoranthene	1147	4.2	1329	4.06	86	40-140	0			
Fluorene	1212	4.2	1329	0	91.2	40-140	0			
Indeno(1,2,3-cd)pyrene	1156	4.2	1329	5.306	86.6	40-140	0			
Naphthalene	1383	4.2	1329	0	104	40-140	0			
Phenanthrene	1230	4.2	1329	10.01	91.8	40-140	0			
Pyrene	1149	4.2	1329	5.306	86	40-140	0			
Surr: 2-Fluorobiphenyl	*3333*	0	*3322*	0	*100*	*20-140*	0			
Surr: 4-Terphenyl-d14	*3250*	0	*3322*	0	*97.8*	*22-172*	0			
Surr: Nitrobenzene-d5	*3793*	0	*3322*	0	*114*	*28-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152201** Instrument ID **SVMS6** Method: **SW846 8270D**

MSD Sample ID: **20021006-55B MSD** Units: **µg/Kg** Analysis Date: **2/20/2020 01:30 PM**

Client ID: **S-6 16-17'** Run ID: **SVMS6_200220A** SeqNo: **6262314** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1244	4.1	1300	2.216	95.5	40-140	1209	2.83	30	
2-Chloronaphthalene	1374	4.1	1300	0	106	40-140	1213	12.4	30	
2-Methylnaphthalene	1435	4.1	1300	3.187	110	40-140	1429	0.414	30	
Acenaphthene	1234	4.1	1300	0	95	40-140	1227	0.627	30	
Acenaphthylene	1246	4.1	1300	0	95.8	40-140	1252	0.503	30	
Anthracene	1324	4.1	1300	2.346	102	40-140	1256	5.3	30	
Benzo(a)anthracene	1314	4.1	1300	5.047	101	40-140	1235	6.18	30	
Benzo(a)pyrene	1207	4.1	1300	3.898	92.6	40-140	1127	6.87	30	
Benzo(b)fluoranthene	1234	4.1	1300	6.147	94.4	40-140	1113	10.2	30	
Benzo(g,h,i)perylene	1179	4.1	1300	6.697	90.2	40-140	1057	10.9	30	
Benzo(k)fluoranthene	1257	4.1	1300	0	96.7	40-140	1131	10.5	30	
Chrysene	1231	4.1	1300	3.818	94.4	40-140	1158	6.14	30	
Dibenzo(a,h)anthracene	1163	4.1	1300	0	89.5	40-140	1061	9.17	30	
Fluoranthene	1235	4.1	1300	4.06	94.7	40-140	1147	7.37	30	
Fluorene	1360	4.1	1300	0	105	40-140	1212	11.5	30	
Indeno(1,2,3-cd)pyrene	1312	4.1	1300	5.306	100	40-140	1156	12.6	30	
Naphthalene	1386	4.1	1300	0	107	40-140	1383	0.23	30	
Phenanthrene	1234	4.1	1300	10.01	94.2	40-140	1230	0.36	30	
Pyrene	1229	4.1	1300	5.306	94.1	40-140	1149	6.77	30	
Surr: 2-Fluorobiphenyl	*3408*	0	*3250*	0	*105*	*20-140*	3333	*2.22*	*0*	
Surr: 4-Terphenyl-d14	*3301*	0	*3250*	0	*102*	*22-172*	3250	*1.55*	*0*	
Surr: Nitrobenzene-d5	*3750*	0	*3250*	0	*115*	*28-140*	3793	*1.14*	*0*	

The following samples were analyzed in this batch:

20021006-41B	20021006-42B	20021006-43B
20021006-44B	20021006-45B	20021006-46B
20021006-47B	20021006-48B	20021006-49B
20021006-50B	20021006-51B	20021006-52B
20021006-53B	20021006-54B	20021006-55B
20021006-56B	20021006-57B	20021006-58B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152288** Instrument ID **SVMS9** Method: **SW8270D**

MBLK Sample ID: **SBLKW1-152288-152288** Units: **µg/L** Analysis Date: **2/24/2020 03:10 PM**

Client ID: Run ID: **SVMS9_200224A** SeqNo: **6268915** Prep Date: **2/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	ND	5.0								
2,4,5-Trichlorophenol	ND	5.0								
2,4,6-Trichlorophenol	ND	5.0								
2,4-Dinitrotoluene	ND	5.0								
Hexachloro-1,3-butadiene	ND	5.0								
Hexachlorobenzene	ND	5.0								
Hexachloroethane	ND	5.0								
m-Cresol	ND	5.0								
Nitrobenzene	ND	5.0								
o-Cresol	ND	5.0								
p-Cresol	ND	5.0								
Pentachlorophenol	ND	5.0								
Pyridine	ND	10								
Surr: 2,4,6-Tribromophenol	*28.93*	0	*50*	0	*57.9*	*27-83*		0		
Surr: 2-Fluorobiphenyl	*26.04*	0	*50*	0	*52.1*	*26-79*		0		
Surr: 2-Fluorophenol	*19.89*	0	*50*	0	*39.8*	*13-56*		0		
Surr: 4-Terphenyl-d14	*37.89*	0	*50*	0	*75.8*	*43-106*		0		
Surr: Nitrobenzene-d5	*25.56*	0	*50*	0	*51.1*	*29-80*		0		
Surr: Phenol-d6	*12.72*	0	*50*	0	*25.4*	*10-35*		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152288** Instrument ID **SVMS9** Method: **SW8270D**

LCS Sample ID: **SLCSW1-152288-152288** Units: **µg/L** Analysis Date: **2/24/2020 03:35 PM**

Client ID: Run ID: **SVMS9_200224A** SeqNo: **6268917** Prep Date: **2/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	11.54	5.0	20	0	57.7	12-85	0			
2,4,5-Trichlorophenol	15.03	5.0	20	0	75.2	47-84	0			
2,4,6-Trichlorophenol	13.64	5.0	20	0	68.2	45-83	0			
2,4-Dinitrotoluene	14.33	5.0	20	0	71.6	54-93	0			
Hexachloro-1,3-butadiene	12.48	5.0	20	0	62.4	11-83	0			
Hexachlorobenzene	14.42	5.0	20	0	72.1	53-89	0			
Hexachloroethane	11.87	5.0	20	0	59.4	10-85	0			
m-Cresol	10.69	5.0	20	0	53.4	24-70	0			
Nitrobenzene	12.05	5.0	20	0	60.2	38-86	0			
o-Cresol	11.67	5.0	20	0	58.4	29-76	0			
p-Cresol	10.69	5.0	20	0	53.4	24-70	0			
Pentachlorophenol	12.89	5.0	20	0	64.4	37-94	0			
Pyridine	5.34	10	20	0	26.7	10-50	0			J
Surr: 2,4,6-Tribromophenol	*36.4*	0	*50*	0	*72.8*	*27-83*	0			
Surr: 2-Fluorobiphenyl	*31.84*	0	*50*	0	*63.7*	*26-79*	0			
Surr: 2-Fluorophenol	*19.77*	0	*50*	0	*39.5*	*13-56*	0			
Surr: 4-Terphenyl-d14	*38.37*	0	*50*	0	*76.7*	*43-106*	0			
Surr: Nitrobenzene-d5	*29.4*	0	*50*	0	*58.8*	*29-80*	0			
Surr: Phenol-d6	*12.3*	0	*50*	0	*24.6*	*10-35*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152288** Instrument ID **SVMS9** Method: **SW8270D**

MS Sample ID: **20021217-03B MS** Units: **µg/L** Analysis Date: **2/24/2020 09:19 PM**

Client ID: Run ID: **SVMS9_200224A** SeqNo: **6268918** Prep Date: **2/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	216.4	100	400	0	54.1	12-85	0			
2,4,5-Trichlorophenol	305.4	100	400	0	76.4	47-84	0			
2,4,6-Trichlorophenol	280.8	100	400	0	70.2	45-83	0			
2,4-Dinitrotoluene	294	100	400	0	73.5	54-93	0			
Hexachloro-1,3-butadiene	231.6	100	400	0	57.9	11-83	0			
Hexachlorobenzene	286.6	100	400	0	71.6	53-89	0			
Hexachloroethane	201	100	400	0	50.2	10-85	0			
m-Cresol	200.2	100	400	0	50	24-70	0			
Nitrobenzene	243.6	100	400	0	60.9	38-86	0			
o-Cresol	218.4	100	400	0	54.6	29-76	0			
p-Cresol	200.2	100	400	0	50	24-70	0			
Pentachlorophenol	340.6	100	400	0	85.2	37-94	0			
Pyridine	116.4	200	400	0	29.1	10-50	0			J
Surr: 2,4,6-Tribromophenol	*729.8*	0	*1000*	0	*73*	*27-83*	0			
Surr: 2-Fluorobiphenyl	*591*	0	*1000*	0	*59.1*	*26-79*	0			
Surr: 2-Fluorophenol	*382.4*	0	*1000*	0	*38.2*	*13-56*	0			
Surr: 4-Terphenyl-d14	*756*	0	*1000*	0	*75.6*	*43-106*	0			
Surr: Nitrobenzene-d5	*586*	0	*1000*	0	*58.6*	*29-80*	0			
Surr: Phenol-d6	*223.6*	0	*1000*	0	*22.4*	*10-35*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152288** Instrument ID **SVMS9** Method: **SW8270D**

MSD Sample ID: **20021217-03B MSD** Units: **µg/L** Analysis Date: **2/24/2020 09:44 PM**

Client ID: Run ID: **SVMS9_200224A** SeqNo: **6268919** Prep Date: **2/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	219.2	100	400	0	54.8	12-85	216.4	1.29	30	
2,4,5-Trichlorophenol	276.8	100	400	0	69.2	47-84	305.4	9.82	30	
2,4,6-Trichlorophenol	274.8	100	400	0	68.7	45-83	280.8	2.16	30	
2,4-Dinitrotoluene	272.6	100	400	0	68.2	54-93	294	7.55	30	
Hexachloro-1,3-butadiene	243.8	100	400	0	61	11-83	231.6	5.13	30	
Hexachlorobenzene	286.4	100	400	0	71.6	53-89	286.6	0.0698	30	
Hexachloroethane	215.2	100	400	0	53.8	10-85	201	6.82	30	
m-Cresol	221	100	400	0	55.2	24-70	200.2	9.88	30	
Nitrobenzene	244.6	100	400	0	61.2	38-86	243.6	0.41	30	
o-Cresol	233.8	100	400	0	58.4	29-76	218.4	6.81	30	
p-Cresol	221	100	400	0	55.2	24-70	200.2	9.88	30	
Pentachlorophenol	327.6	100	400	0	81.9	37-94	340.6	3.89	30	
Pyridine	130.4	200	400	0	32.6	10-50	116.4	0	30	J
Surr: 2,4,6-Tribromophenol	*721.2*	0	*1000*	0	*72.1*	*27-83*	729.8	*1.19*	*40*	
Surr: 2-Fluorobiphenyl	*601.4*	0	*1000*	0	*60.1*	*26-79*	591	*1.74*	*40*	
Surr: 2-Fluorophenol	*420*	0	*1000*	0	*42*	*13-56*	382.4	*9.37*	*40*	
Surr: 4-Terphenyl-d14	*732.4*	0	*1000*	0	*73.2*	*43-106*	756	*3.17*	*40*	
Surr: Nitrobenzene-d5	*595.8*	0	*1000*	0	*59.6*	*29-80*	586	*1.66*	*40*	
Surr: Phenol-d6	*269.2*	0	*1000*	0	*26.9*	*10-35*	223.6	*18.5*	*40*	

The following samples were analyzed in this batch:

20021006-01A	20021006-02A	20021006-03A
20021006-08A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152292** Instrument ID **SVMS8** Method: **SW8270D**

MBLK Sample ID: **SBLKW1-152292-152292** Units: **µg/L** Analysis Date: **2/24/2020 08:33 PM**

Client ID: Run ID: **SVMS8_200224A** SeqNo: **6270754** Prep Date: **2/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	ND	5.0								
2,4,5-Trichlorophenol	ND	5.0								
2,4,6-Trichlorophenol	ND	5.0								
2,4-Dinitrotoluene	ND	5.0								
Hexachloro-1,3-butadiene	ND	5.0								
Hexachlorobenzene	ND	5.0								
Hexachloroethane	ND	5.0								
m-Cresol	ND	5.0								
Nitrobenzene	ND	5.0								
o-Cresol	ND	5.0								
p-Cresol	ND	5.0								
Pentachlorophenol	ND	5.0								
Pyridine	ND	10								
Surr: 2,4,6-Tribromophenol	*30.32*	0	*50*	0	*60.6*	*27-83*	0			
Surr: 2-Fluorobiphenyl	*34.74*	0	*50*	0	*69.5*	*26-79*	0			
Surr: 2-Fluorophenol	*25.41*	0	*50*	0	*50.8*	*13-56*	0			
Surr: 4-Terphenyl-d14	*44.28*	0	*50*	0	*88.6*	*43-106*	0			
Surr: Nitrobenzene-d5	*34.56*	0	*50*	0	*69.1*	*29-80*	0			
Surr: Phenol-d6	*17.13*	0	*50*	0	*34.3*	*10-35*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152292** Instrument ID **SVMS8** Method: **SW8270D**

LCS Sample ID: **SLCSW1-152292-152292** Units: **µg/L** Analysis Date: **2/24/2020 08:54 PM**

Client ID: Run ID: **SVMS8_200224A** SeqNo: **6270755** Prep Date: **2/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	13.09	5.0	20	0	65.4	12-85	0			
2,4,5-Trichlorophenol	15.91	5.0	20	0	79.6	47-84	0			
2,4,6-Trichlorophenol	15.44	5.0	20	0	77.2	45-83	0			
2,4-Dinitrotoluene	16.75	5.0	20	0	83.8	54-93	0			
Hexachloro-1,3-butadiene	13.12	5.0	20	0	65.6	11-83	0			
Hexachlorobenzene	16.46	5.0	20	0	82.3	53-89	0			
Hexachloroethane	12.67	5.0	20	0	63.4	10-85	0			
m-Cresol	12.61	5.0	20	0	63	24-70	0			
Nitrobenzene	14.64	5.0	20	0	73.2	38-86	0			
o-Cresol	14.51	5.0	20	0	72.6	29-76	0			
p-Cresol	12.61	5.0	20	0	63	24-70	0			
Pentachlorophenol	15.86	5.0	20	0	79.3	37-94	0			
Pyridine	4.57	10	20	0	22.8	10-50	0			J
Surr: 2,4,6-Tribromophenol	*38.26*	0	*50*	0	*76.5*	*27-83*	0			
Surr: 2-Fluorobiphenyl	*35.48*	0	*50*	0	*71*	*26-79*	0			
Surr: 2-Fluorophenol	*24.09*	0	*50*	0	*48.2*	*13-56*	0			
Surr: 4-Terphenyl-d14	*44.22*	0	*50*	0	*88.4*	*43-106*	0			
Surr: Nitrobenzene-d5	*35.63*	0	*50*	0	*71.3*	*29-80*	0			
Surr: Phenol-d6	*16.35*	0	*50*	0	*32.7*	*10-35*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152292** Instrument ID **SVMS8** Method: **SW8270D**

MS Sample ID: **20021006-27A MS** Units: **µg/L** Analysis Date: **2/24/2020 09:15 PM**

Client ID: **S-3 10-11' TCLP** Run ID: **SVMS8_200224A** SeqNo: **6270756** Prep Date: **2/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	200.8	100	400	0	50.2	12-85	0			
2,4,5-Trichlorophenol	273.8	100	400	0	68.4	47-84	0			
2,4,6-Trichlorophenol	262	100	400	0	65.5	45-83	0			
2,4-Dinitrotoluene	271	100	400	0	67.8	54-93	0			
Hexachloro-1,3-butadiene	207.6	100	400	0	51.9	11-83	0			
Hexachlorobenzene	274.8	100	400	0	68.7	53-89	0			
Hexachloroethane	190.6	100	400	0	47.6	10-85	0			
m-Cresol	222.6	100	400	0	55.6	24-70	0			
Nitrobenzene	244	100	400	0	61	38-86	0			
o-Cresol	255.8	100	400	0	64	29-76	0			
p-Cresol	222.6	100	400	0	55.6	24-70	0			
Pentachlorophenol	268.6	100	400	0	67.2	37-94	0			
Pyridine	162.6	200	400	0	40.6	10-50	0			J
Surr: 2,4,6-Tribromophenol	*664.2*	0	*1000*	0	*66.4*	*27-83*	0			
Surr: 2-Fluorobiphenyl	*616.8*	0	*1000*	0	*61.7*	*26-79*	0			
Surr: 2-Fluorophenol	*441.2*	0	*1000*	0	*44.1*	*13-56*	0			
Surr: 4-Terphenyl-d14	*750.4*	0	*1000*	0	*75*	*43-106*	0			
Surr: Nitrobenzene-d5	*608*	0	*1000*	0	*60.8*	*29-80*	0			
Surr: Phenol-d6	*291.8*	0	*1000*	0	*29.2*	*10-35*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152292** Instrument ID **SVMS8** Method: **SW8270D**

MSD Sample ID: **20021006-27A MSD** Units: **µg/L** Analysis Date: **2/24/2020 09:36 PM**

Client ID: **S-3 10-11' TCLP** Run ID: **SVMS8_200224A** SeqNo: **6270757** Prep Date: **2/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	212.8	100	400	0	53.2	12-85	200.8	5.8	30	
2,4,5-Trichlorophenol	255.6	100	400	0	63.9	47-84	273.8	6.88	30	
2,4,6-Trichlorophenol	246.6	100	400	0	61.6	45-83	262	6.06	30	
2,4-Dinitrotoluene	272.2	100	400	0	68	54-93	271	0.442	30	
Hexachloro-1,3-butadiene	215.8	100	400	0	54	11-83	207.6	3.87	30	
Hexachlorobenzene	261.4	100	400	0	65.4	53-89	274.8	5	30	
Hexachloroethane	207.4	100	400	0	51.8	10-85	190.6	8.44	30	
m-Cresol	207.4	100	400	0	51.8	24-70	222.6	7.07	30	
Nitrobenzene	238	100	400	0	59.5	38-86	244	2.49	30	
o-Cresol	242.2	100	400	0	60.6	29-76	255.8	5.46	30	
p-Cresol	207.4	100	400	0	51.8	24-70	222.6	7.07	30	
Pentachlorophenol	277.2	100	400	0	69.3	37-94	268.6	3.15	30	
Pyridine	154.8	200	400	0	38.7	10-50	162.6	0	30	J
Surr: 2,4,6-Tribromophenol	*625.2*	0	*1000*	0	*62.5*	*27-83*	664.2	*6.05*	*40*	
Surr: 2-Fluorobiphenyl	*575.8*	0	*1000*	0	*57.6*	*26-79*	616.8	*6.88*	*40*	
Surr: 2-Fluorophenol	*408.8*	0	*1000*	0	*40.9*	*13-56*	441.2	*7.62*	*40*	
Surr: 4-Terphenyl-d14	*726*	0	*1000*	0	*72.6*	*43-106*	750.4	*3.31*	*40*	
Surr: Nitrobenzene-d5	*588.2*	0	*1000*	0	*58.8*	*29-80*	608	*3.31*	*40*	
Surr: Phenol-d6	*265.8*	0	*1000*	0	*26.6*	*10-35*	291.8	*9.33*	*40*	

The following samples were analyzed in this batch:

20021006-20A	20021006-25A	20021006-26A
20021006-27A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152363** Instrument ID **SVMS8** Method: **SW8270D**

MBLK Sample ID: **SBLKW1-152363-152363** Units: **µg/L** Analysis Date: **2/24/2020 07:51 PM**

Client ID: Run ID: **SVMS8_200224A** SeqNo: **6270729** Prep Date: **2/24/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	ND	5.0								
2,4,5-Trichlorophenol	ND	5.0								
2,4,6-Trichlorophenol	ND	5.0								
2,4-Dinitrotoluene	ND	5.0								
Hexachloro-1,3-butadiene	ND	5.0								
Hexachlorobenzene	ND	5.0								
Hexachloroethane	ND	5.0								
m-Cresol	ND	5.0								
Nitrobenzene	ND	5.0								
o-Cresol	ND	5.0								
p-Cresol	ND	5.0								
Pentachlorophenol	ND	5.0								
Pyridine	ND	10								
Surr: 2,4,6-Tribromophenol	*31.7*	0	*50*	0	*63.4*	*27-83*		0		
Surr: 2-Fluorobiphenyl	*35.89*	0	*50*	0	*71.8*	*26-79*		0		
Surr: 2-Fluorophenol	*25.65*	0	*50*	0	*51.3*	*13-56*		0		
Surr: 4-Terphenyl-d14	*45.56*	0	*50*	0	*91.1*	*43-106*		0		
Surr: Nitrobenzene-d5	*35.58*	0	*50*	0	*71.2*	*29-80*		0		
Surr: Phenol-d6	*17.13*	0	*50*	0	*34.3*	*10-35*		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152363** Instrument ID **SVMS8** Method: **SW8270D**

LCS Sample ID: **SLCSW1-152363-152363** Units: **µg/L** Analysis Date: **2/24/2020 08:12 PM**

Client ID: Run ID: **SVMS8_200224A** SeqNo: **6270730** Prep Date: **2/24/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	13.48	5.0	20	0	67.4	12-85	0			
2,4,5-Trichlorophenol	15.92	5.0	20	0	79.6	47-84	0			
2,4,6-Trichlorophenol	15.33	5.0	20	0	76.6	45-83	0			
2,4-Dinitrotoluene	16.73	5.0	20	0	83.6	54-93	0			
Hexachloro-1,3-butadiene	13.75	5.0	20	0	68.8	11-83	0			
Hexachlorobenzene	16.38	5.0	20	0	81.9	53-89	0			
Hexachloroethane	13.57	5.0	20	0	67.8	10-85	0			
m-Cresol	12.66	5.0	20	0	63.3	24-70	0			
Nitrobenzene	14.47	5.0	20	0	72.4	38-86	0			
o-Cresol	14.39	5.0	20	0	72	29-76	0			
p-Cresol	12.66	5.0	20	0	63.3	24-70	0			
Pentachlorophenol	15.73	5.0	20	0	78.6	37-94	0			
Pyridine	7.67	10	20	0	38.4	10-50	0			J
Surr: 2,4,6-Tribromophenol	*38.22*	0	*50*	0	*76.4*	*27-83*	0			
Surr: 2-Fluorobiphenyl	*35.91*	0	*50*	0	*71.8*	*26-79*	0			
Surr: 2-Fluorophenol	*24.19*	0	*50*	0	*48.4*	*13-56*	0			
Surr: 4-Terphenyl-d14	*44.24*	0	*50*	0	*88.5*	*43-106*	0			
Surr: Nitrobenzene-d5	*35.27*	0	*50*	0	*70.5*	*29-80*	0			
Surr: Phenol-d6	*16.44*	0	*50*	0	*32.9*	*10-35*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152363** Instrument ID **SVMS8** Method: **SW8270D**

MS Sample ID: **20021006-29A MS** Units: **µg/L** Analysis Date: **2/24/2020 11:21 PM**

Client ID: **S-3 12-13' TCLP** Run ID: **SVMS8_200224A** SeqNo: **6270731** Prep Date: **2/24/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	171	100	400	0	42.8	12-85	0			
2,4,5-Trichlorophenol	232.6	100	400	0	58.2	47-84	0			
2,4,6-Trichlorophenol	220.8	100	400	0	55.2	45-83	0			
2,4-Dinitrotoluene	241.8	100	400	0	60.4	54-93	0			
Hexachloro-1,3-butadiene	168	100	400	0	42	11-83	0			
Hexachlorobenzene	241.8	100	400	0	60.4	53-89	0			
Hexachloroethane	161.2	100	400	0	40.3	10-85	0			
m-Cresol	202.6	100	400	0	50.6	24-70	0			
Nitrobenzene	194.2	100	400	0	48.6	38-86	0			
o-Cresol	227.2	100	400	0	56.8	29-76	0			
p-Cresol	202.6	100	400	0	50.6	24-70	0			
Pentachlorophenol	261.8	100	400	0	65.4	37-94	0			
Pyridine	125	200	400	0	31.2	10-50	0			J
Surr: 2,4,6-Tribromophenol	*581.4*	0	*1000*	0	*58.1*	*27-83*	0			
Surr: 2-Fluorobiphenyl	*491.6*	0	*1000*	0	*49.2*	*26-79*	0			
Surr: 2-Fluorophenol	*398.6*	0	*1000*	0	*39.9*	*13-56*	0			
Surr: 4-Terphenyl-d14	*715.8*	0	*1000*	0	*71.6*	*43-106*	0			
Surr: Nitrobenzene-d5	*481.6*	0	*1000*	0	*48.2*	*29-80*	0			
Surr: Phenol-d6	*277.8*	0	*1000*	0	*27.8*	*10-35*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152363** Instrument ID **SVMS8** Method: **SW8270D**

MSD Sample ID: **20021006-29A MSD** Units: **µg/L** Analysis Date: **2/24/2020 11:42 PM**

Client ID: **S-3 12-13' TCLP** Run ID: **SVMS8_200224A** SeqNo: **6270732** Prep Date: **2/24/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	217	100	400	0	54.2	12-85	171	23.7	30	
2,4,5-Trichlorophenol	270.4	100	400	0	67.6	47-84	232.6	15	30	
2,4,6-Trichlorophenol	259.8	100	400	0	65	45-83	220.8	16.2	30	
2,4-Dinitrotoluene	300.8	100	400	0	75.2	54-93	241.8	21.7	30	
Hexachloro-1,3-butadiene	213.4	100	400	0	53.4	11-83	168	23.8	30	
Hexachlorobenzene	295.8	100	400	0	74	53-89	241.8	20.1	30	
Hexachloroethane	212	100	400	0	53	10-85	161.2	27.2	30	
m-Cresol	219.4	100	400	0	54.8	24-70	202.6	7.96	30	
Nitrobenzene	230	100	400	0	57.5	38-86	194.2	16.9	30	
o-Cresol	244.8	100	400	0	61.2	29-76	227.2	7.46	30	
p-Cresol	219.4	100	400	0	54.8	24-70	202.6	7.96	30	
Pentachlorophenol	325.8	100	400	0	81.4	37-94	261.8	21.8	30	
Pyridine	171.4	200	400	0	42.8	10-50	125	0	30	J
Surr: 2,4,6-Tribromophenol	*686.8*	0	*1000*	0	*68.7*	*27-83*	581.4	*16.6*	*40*	
Surr: 2-Fluorobiphenyl	*574.4*	0	*1000*	0	*57.4*	*26-79*	491.6	*15.5*	*40*	
Surr: 2-Fluorophenol	*420.2*	0	*1000*	0	*42*	*13-56*	398.6	*5.28*	*40*	
Surr: 4-Terphenyl-d14	*851.4*	0	*1000*	0	*85.1*	*43-106*	715.8	*17.3*	*40*	
Surr: Nitrobenzene-d5	*561.4*	0	*1000*	0	*56.1*	*29-80*	481.6	*15.3*	*40*	
Surr: Phenol-d6	*291.4*	0	*1000*	0	*29.1*	*10-35*	277.8	*4.78*	*40*	

The following samples were analyzed in this batch:

20021006-29A	20021006-32A	20021006-33A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152607** Instrument ID **SVMS10** Method: **SW8270D**

MBLK Sample ID: **SBLKW1-152607-152607** Units: **µg/L** Analysis Date: **2/28/2020 06:20 PM**

Client ID: Run ID: **SVMS10_200228A** SeqNo: **6280114** Prep Date: **2/28/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	ND	5.0								
2,4,5-Trichlorophenol	ND	5.0								
2,4,6-Trichlorophenol	ND	5.0								
2,4-Dinitrotoluene	ND	5.0								
Hexachloro-1,3-butadiene	ND	5.0								
Hexachlorobenzene	ND	5.0								
Hexachloroethane	ND	5.0								
m-Cresol	ND	5.0								
Nitrobenzene	ND	5.0								
o-Cresol	ND	5.0								
p-Cresol	ND	5.0								
Pentachlorophenol	ND	5.0								
Pyridine	ND	10								
Surr: 2,4,6-Tribromophenol	*22.55*	0	*50*	0	*45.1*	*27-83*		0		
Surr: 2-Fluorobiphenyl	*23.61*	0	*50*	0	*47.2*	*26-79*		0		
Surr: 2-Fluorophenol	*23.41*	0	*50*	0	*46.8*	*13-56*		0		
Surr: 4-Terphenyl-d14	*26.24*	0	*50*	0	*52.5*	*43-106*		0		
Surr: Nitrobenzene-d5	*22.07*	0	*50*	0	*44.1*	*29-80*		0		
Surr: Phenol-d6	*16.51*	0	*50*	0	*33*	*10-35*		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152607** Instrument ID **SVMS10** Method: **SW8270D**

LCS Sample ID: **SLCSW1-152607-152607** Units: **µg/L** Analysis Date: **2/28/2020 06:42 PM**

Client ID: Run ID: **SVMS10_200228A** SeqNo: **6280115** Prep Date: **2/28/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	10.53	5.0	20	0	52.6	12-85	0			
2,4,5-Trichlorophenol	12.56	5.0	20	0	62.8	47-84	0			
2,4,6-Trichlorophenol	11.31	5.0	20	0	56.6	45-83	0			
2,4-Dinitrotoluene	12.33	5.0	20	0	61.6	54-93	0			
Hexachloro-1,3-butadiene	10.86	5.0	20	0	54.3	11-83	0			
Hexachlorobenzene	13.21	5.0	20	0	66	53-89	0			
Hexachloroethane	10.09	5.0	20	0	50.4	10-85	0			
m-Cresol	9.9	5.0	20	0	49.5	24-70	0			
Nitrobenzene	11.63	5.0	20	0	58.2	38-86	0			
o-Cresol	11.48	5.0	20	0	57.4	29-76	0			
p-Cresol	9.9	5.0	20	0	49.5	24-70	0			
Pentachlorophenol	10.66	5.0	20	0	53.3	37-94	0			
Pyridine	5.94	10	20	0	29.7	10-50	0			J
Surr: 2,4,6-Tribromophenol	*31.42*	0	*50*	0	*62.8*	*27-83*	0			
Surr: 2-Fluorobiphenyl	*29.54*	0	*50*	0	*59.1*	*26-79*	0			
Surr: 2-Fluorophenol	*19.85*	0	*50*	0	*39.7*	*13-56*	0			
Surr: 4-Terphenyl-d14	*26.69*	0	*50*	0	*53.4*	*43-106*	0			
Surr: Nitrobenzene-d5	*27.95*	0	*50*	0	*55.9*	*29-80*	0			
Surr: Phenol-d6	*13.39*	0	*50*	0	*26.8*	*10-35*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152607** Instrument ID **SVMS10** Method: **SW8270D**

MS Sample ID: **20021006-80A MS** Units: **µg/L** Analysis Date: **2/28/2020 10:16 PM**

Client ID: **A6 TCLP** Run ID: **SVMS10_200228A** SeqNo: **6280116** Prep Date: **2/28/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	235.4	100	400	0	58.8	12-85	0			
2,4,5-Trichlorophenol	305.6	100	400	0	76.4	47-84	0			
2,4,6-Trichlorophenol	325.2	100	400	0	81.3	45-83	0			
2,4-Dinitrotoluene	299.4	100	400	0	74.8	54-93	0			
Hexachloro-1,3-butadiene	251.2	100	400	0	62.8	11-83	0			
Hexachlorobenzene	316.2	100	400	0	79	53-89	0			
Hexachloroethane	221	100	400	0	55.2	10-85	0			
m-Cresol	242	100	400	0	60.5	24-70	0			
Nitrobenzene	274.4	100	400	0	68.6	38-86	0			
o-Cresol	275.4	100	400	0	68.8	29-76	0			
p-Cresol	242	100	400	0	60.5	24-70	0			
Pentachlorophenol	284	100	400	0	71	37-94	0			
Pyridine	122	200	400	0	30.5	10-50	0			J
Surr: 2,4,6-Tribromophenol	*813*	0	*1000*	0	*81.3*	*27-83*	0			
Surr: 2-Fluorobiphenyl	*735.8*	0	*1000*	0	*73.6*	*26-79*	0			
Surr: 2-Fluorophenol	*541*	0	*1000*	0	*54.1*	*13-56*	0			
Surr: 4-Terphenyl-d14	*605.8*	0	*1000*	0	*60.6*	*43-106*	0			
Surr: Nitrobenzene-d5	*677.6*	0	*1000*	0	*67.8*	*29-80*	0			
Surr: Phenol-d6	*339.2*	0	*1000*	0	*33.9*	*10-35*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152607** Instrument ID **SVMS10** Method: **SW8270D**

MSD Sample ID: **20021006-80A MSD** Units: **µg/L** Analysis Date: **2/28/2020 10:38 PM**

Client ID: **A6 TCLP** Run ID: **SVMS10_200228A** SeqNo: **6280117** Prep Date: **2/28/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	248.4	100	400	0	62.1	12-85	235.4	5.37	30	
2,4,5-Trichlorophenol	310.6	100	400	0	77.6	47-84	305.6	1.62	30	
2,4,6-Trichlorophenol	304.6	100	400	0	76.2	45-83	325.2	6.54	30	
2,4-Dinitrotoluene	319.2	100	400	0	79.8	54-93	299.4	6.4	30	
Hexachloro-1,3-butadiene	268	100	400	0	67	11-83	251.2	6.47	30	
Hexachlorobenzene	304.4	100	400	0	76.1	53-89	316.2	3.8	30	
Hexachloroethane	249	100	400	0	62.2	10-85	221	11.9	30	
m-Cresol	248.4	100	400	0	62.1	24-70	242	2.61	30	
Nitrobenzene	306.6	100	400	0	76.6	38-86	274.4	11.1	30	
o-Cresol	279	100	400	0	69.8	29-76	275.4	1.3	30	
p-Cresol	248.4	100	400	0	62.1	24-70	242	2.61	30	
Pentachlorophenol	315.2	100	400	0	78.8	37-94	284	10.4	30	
Pyridine	103.4	200	400	0	25.8	10-50	122	0	30	J
Surr: 2,4,6-Tribromophenol	*782*	0	*1000*	0	*78.2*	*27-83*	813	*3.89*	*40*	
Surr: 2-Fluorobiphenyl	*715*	0	*1000*	0	*71.5*	*26-79*	735.8	*2.87*	*40*	
Surr: 2-Fluorophenol	*479*	0	*1000*	0	*47.9*	*13-56*	541	*12.2*	*40*	
Surr: 4-Terphenyl-d14	*557.2*	0	*1000*	0	*55.7*	*43-106*	605.8	*8.36*	*40*	
Surr: Nitrobenzene-d5	*753.6*	0	*1000*	0	*75.4*	*29-80*	677.6	*10.6*	*40*	
Surr: Phenol-d6	*345*	0	*1000*	0	*34.5*	*10-35*	339.2	*1.7*	*40*	

The following samples were analyzed in this batch: 20021006-80A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152017** Instrument ID **VMS11** Method: **SW8260C**

MBLK Sample ID: **MBLK-152017-152017** Units: **µg/Kg-dry** Analysis Date: **2/21/2020 01:48 AM**

Client ID: Run ID: **VMS11_200220B** SeqNo: **6263520** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	30								
1,1,1-Trichloroethane	ND	30								
1,1,2,2-Tetrachloroethane	ND	30								
1,1,2-Trichloroethane	ND	30								
1,1,2-Trichlorotrifluoroethane	ND	30								
1,1-Dichloroethane	ND	30								
1,1-Dichloroethene	ND	30								
1,2,3-Trichloropropane	ND	30								
1,2,4-Trichlorobenzene	ND	100								
1,2,4-Trimethylbenzene	ND	30								
1,2-Dibromo-3-chloropropane	ND	100								
1,2-Dibromoethane	ND	30								
1,2-Dichlorobenzene	ND	30								
1,2-Dichloroethane	ND	100								
1,2-Dichloropropane	ND	30								
1,3,5-Trimethylbenzene	ND	100								
1,3-Dichlorobenzene	ND	30								
1,4-Dichlorobenzene	ND	30								
2-Butanone	ND	200								
2-Hexanone	ND	30								
2-Methylnaphthalene	ND	100								
4-Methyl-2-pentanone	ND	30								
Acetone	ND	100								
Acrylonitrile	ND	100								
Benzene	ND	30								
Bromochloromethane	ND	30								
Bromodichloromethane	ND	30								
Bromoform	ND	30								
Bromomethane	ND	100								
Carbon disulfide	ND	30								
Carbon tetrachloride	ND	30								
Chlorobenzene	ND	30								
Chloroethane	ND	100								
Chloroform	ND	30								
Chloromethane	ND	100								
cis-1,2-Dichloroethene	ND	30								
cis-1,3-Dichloropropene	ND	30								
Dibromochloromethane	ND	30								
Dibromomethane	ND	30								
Dichlorodifluoromethane	ND	100								
Diethyl ether	ND	30								
Ethylbenzene	ND	30								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **152017** Instrument ID **VMS11** Method: **SW8260C**

Hexachloroethane	ND	100					
Isopropylbenzene	ND	30					
m,p-Xylene	ND	60					
Methyl iodide	ND	500					
Methyl tert-butyl ether	ND	30					
Methylene chloride	ND	250					
Naphthalene	ND	100					
n-Propylbenzene	ND	30					
o-Xylene	ND	30					
Styrene	ND	30					
Tetrachloroethene	ND	30					
Toluene	ND	30					
trans-1,2-Dichloroethene	ND	30					
trans-1,3-Dichloropropene	ND	30					
trans-1,4-Dichloro-2-butene	ND	30					
Trichloroethene	ND	30					
Trichlorofluoromethane	ND	30					
Vinyl acetate	ND	250					
Vinyl chloride	ND	30					
Xylenes, Total	ND	90					
Surr: 1,2-Dichloroethane-d4	*977.5*	0	*1000*	0	*97.8*	*70-130*	0
Surr: 4-Bromofluorobenzene	*956.5*	0	*1000*	0	*95.6*	*70-130*	0
Surr: Dibromofluoromethane	*962*	0	*1000*	0	*96.2*	*70-130*	0
Surr: Toluene-d8	*959*	0	*1000*	0	*95.9*	*70-130*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152017** Instrument ID **VMS11** Method: **SW8260C**

LCS Sample ID: **LCS-152017-152017** Units: **µg/Kg-dry** Analysis Date: **2/21/2020 12:42 PM**

Client ID: Run ID: **VMS11_200220B** SeqNo: **6263544** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	882	30	1000	0	88.2	75-125	0			
1,1,1-Trichloroethane	866.5	30	1000	0	86.6	70-135	0			
1,1,2,2-Tetrachloroethane	779	30	1000	0	77.9	55-130	0			
1,1,2-Trichloroethane	940	30	1000	0	94	60-125	0			
1,1-Dichloroethane	835	30	1000	0	83.5	75-125	0			
1,1-Dichloroethene	888	30	1000	0	88.8	76-148	0			
1,2,3-Trichloropropane	843.5	30	1000	0	84.4	65-130	0			
1,2,4-Trichlorobenzene	799	100	1000	0	79.9	65-130	0			
1,2,4-Trimethylbenzene	853	30	1000	0	85.3	65-135	0			
1,2-Dibromo-3-chloropropane	723	100	1000	0	72.3	40-135	0			
1,2-Dibromoethane	894	30	1000	0	89.4	80-195	0			
1,2-Dichlorobenzene	882	30	1000	0	88.2	75-120	0			
1,2-Dichloroethane	910.5	100	1000	0	91	70-135	0			
1,2-Dichloropropane	872.5	30	1000	0	87.2	70-120	0			
1,3,5-Trimethylbenzene	907	100	1000	0	90.7	65-135	0			
1,3-Dichlorobenzene	860.5	30	1000	0	86	70-125	0			
1,4-Dichlorobenzene	891.5	30	1000	0	89.2	70-125	0			
2-Butanone	810.5	200	1000	0	81	30-160	0			
2-Hexanone	880	30	1000	0	88	45-145	0			
4-Methyl-2-pentanone	1172	30	1000	0	117	74-176	0			
Acetone	867.5	100	1000	0	86.8	20-160	0			
Acrylonitrile	896	100	1000	0	89.6	70-135	0			
Benzene	862	30	1000	0	86.2	75-125	0			
Bromochloromethane	885.5	30	1000	0	88.6	74-134	0			
Bromodichloromethane	874.5	30	1000	0	87.4	70-130	0			
Bromoform	745	30	1000	0	74.5	55-135	0			
Bromomethane	957.5	100	1000	0	95.8	50-170	0			
Carbon disulfide	922	30	1000	0	92.2	45-160	0			
Carbon tetrachloride	856.5	30	1000	0	85.6	65-135	0			
Chlorobenzene	917	30	1000	0	91.7	75-125	0			
Chloroethane	878	100	1000	0	87.8	40-155	0			
Chloroform	857	30	1000	0	85.7	66-140	0			
Chloromethane	956	100	1000	0	95.6	50-144	0			
cis-1,2-Dichloroethene	856.5	30	1000	0	85.6	65-125	0			
cis-1,3-Dichloropropene	783.5	30	1000	0	78.4	70-125	0			
Dibromochloromethane	772.5	30	1000	0	77.2	65-135	0			
Dibromomethane	908.5	30	1000	0	90.8	75-130	0			
Dichlorodifluoromethane	1198	100	1000	0	120	35-135	0			
Diethyl ether	918	30	1000	0	91.8	67-150	0			
Ethylbenzene	903	30	1000	0	90.3	75-125	0			
Hexachloroethane	790.5	100	1000	0	79	51-122	0			
Isopropylbenzene	905	30	1000	0	90.5	75-130	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **152017** Instrument ID **VMS11** Method: **SW8260C**

m,p-Xylene	1800	60	2000	0	90	80-125	0
Methyl iodide	895.5	500	1000	0	89.6	64-180	0
Methyl tert-butyl ether	1076	30	1000	0	108	75-125	0
Methylene chloride	881	250	1000	0	88.1	55-145	0
Naphthalene	784.5	100	1000	0	78.4	40-140	0
n-Propylbenzene	909	30	1000	0	90.9	65-135	0
o-Xylene	909	30	1000	0	90.9	75-125	0
Styrene	855	30	1000	0	85.5	80-138	0
Tetrachloroethene	937	30	1000	0	93.7	67-167	0
Toluene	903.5	30	1000	0	90.4	70-125	0
trans-1,2-Dichloroethene	873	30	1000	0	87.3	65-135	0
trans-1,3-Dichloropropene	806	30	1000	0	80.6	59-129	0
trans-1,4-Dichloro-2-butene	683	30	1000	0	68.3	62-112	0
Trichloroethene	955.5	30	1000	0	95.6	75-125	0
Trichlorofluoromethane	794.5	30	1000	0	79.4	25-185	0
Vinyl chloride	832.5	30	1000	0	83.2	60-125	0
Xylenes, Total	2709	90	3000	0	90.3	75-125	0
Surr: 1,2-Dichloroethane-d4	*940.5*	0	*1000*	0	*94*	*70-130*	0
Surr: 4-Bromofluorobenzene	*993*	0	*1000*	0	*99.3*	*70-130*	0
Surr: Dibromofluoromethane	*959*	0	*1000*	0	*95.9*	*70-130*	0
Surr: Toluene-d8	*979*	0	*1000*	0	*97.9*	*70-130*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152017** Instrument ID **VMS11** Method: **SW8260C**

MS Sample ID: **20021006-56A MS** Units: **µg/Kg-dry** Analysis Date: **2/21/2020 09:28 AM**

Client ID: **S-11R 5-6'** Run ID: **VMS11_200220B** SeqNo: **6263542** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1130	42	1396	0	81	75-125	0			
1,1,1-Trichloroethane	1091	42	1396	0	78.2	70-135	0			
1,1,2,2-Tetrachloroethane	817.8	42	1396	0	58.6	55-130	0			
1,1,2-Trichloroethane	1287	42	1396	0	92.2	60-125	0			
1,1-Dichloroethane	1125	42	1396	0	80.6	75-125	0			
1,1-Dichloroethene	1168	42	1396	0	83.7	76-148	0			
1,2,3-Trichloropropane	1138	42	1396	0	81.6	65-130	0			
1,2,4-Trichlorobenzene	1033	140	1396	0	74	65-130	0			
1,2,4-Trimethylbenzene	1131	42	1396	0	81	65-135	0			
1,2-Dibromo-3-chloropropane	985.9	140	1396	0	70.6	40-135	0			
1,2-Dibromoethane	1230	42	1396	0	88.2	80-195	0			
1,2-Dichlorobenzene	1182	42	1396	0	84.7	75-120	0			
1,2-Dichloroethane	1316	140	1396	0	94.3	70-135	0			
1,2-Dichloropropane	1209	42	1396	0	86.6	70-120	0			
1,3,5-Trimethylbenzene	1198	140	1396	0	85.8	65-135	0			
1,3-Dichlorobenzene	1153	42	1396	0	82.6	70-125	0			
1,4-Dichlorobenzene	1222	42	1396	0	87.6	70-125	0			
2-Butanone	1862	280	1396	0	133	30-160	0			
2-Hexanone	1854	42	1396	0	133	45-145	0			
4-Methyl-2-pentanone	1365	42	1396	0	97.8	74-176	0			
Acetone	2666	140	1396	0	191	20-160	0			S
Acrylonitrile	1204	140	1396	0	86.3	70-135	0			
Benzene	1179	42	1396	0	84.5	75-125	0			
Bromochloromethane	1221	42	1396	0	87.5	74-134	0			
Bromodichloromethane	1128	42	1396	0	80.8	70-130	0			
Bromoform	939.9	42	1396	0	67.4	55-135	0			
Bromomethane	424.2	140	1396	0	30.4	50-170	0			S
Carbon disulfide	1078	42	1396	0	77.2	45-160	0			
Carbon tetrachloride	1052	42	1396	0	75.4	65-135	0			
Chlorobenzene	1241	42	1396	0	89	75-125	0			
Chloroethane	940.6	140	1396	0	67.4	40-155	0			
Chloroform	1159	42	1396	0	83	66-140	0			
Chloromethane	1234	140	1396	0	88.4	50-144	0			
cis-1,2-Dichloroethene	1076	42	1396	0	77.1	65-125	0			
cis-1,3-Dichloropropene	1057	42	1396	0	75.8	70-125	0			
Dibromochloromethane	985.9	42	1396	0	70.6	65-135	0			
Dibromomethane	1271	42	1396	0	91.1	75-130	0			
Dichlorodifluoromethane	1458	140	1396	0	104	35-135	0			
Diethyl ether	1183	42	1396	0	84.8	67-150	0			
Ethylbenzene	1192	42	1396	0	85.4	75-125	0			
Hexachloroethane	845.7	140	1396	0	60.6	51-122	0			
Isopropylbenzene	1175	42	1396	0	84.2	75-130	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **152017** Instrument ID **VMS11** Method: **SW8260C**

m,p-Xylene	2365	84	2791	0	84.8	80-125	0	
Methyl iodide	1024	700	1396	0	73.4	64-180	0	
Methyl tert-butyl ether	1342	42	1396	0	96.2	75-125	0	
Methylene chloride	1262	350	1396	0	90.4	55-145	0	
Naphthalene	1361	140	1396	0	97.5	40-140	0	
n-Propylbenzene	1160	42	1396	0	83.1	65-135	0	
o-Xylene	1207	42	1396	0	86.5	75-125	0	
Styrene	1141	42	1396	0	81.8	80-138	0	
Tetrachloroethene	2227	42	1396	0	160	67-167	0	
Toluene	1191	42	1396	0	85.4	70-125	0	
trans-1,2-Dichloroethene	1149	42	1396	0	82.4	65-135	0	
trans-1,3-Dichloropropene	1006	42	1396	0	72.1	59-129	0	
trans-1,4-Dichloro-2-butene	747.3	42	1396	0	53.6	62-112	0	S
Trichloroethene	1520	42	1396	0	109	75-125	0	
Trichlorofluoromethane	1225	42	1396	0	87.8	25-185	0	
Vinyl chloride	1009	42	1396	0	72.3	60-125	0	
Xylenes, Total	3573	130	4187	0	85.3	75-125	0	
Surr: 1,2-Dichloroethane-d4	*1330*	0	*1396*	0	*95.3*	*70-130*	0	
Surr: 4-Bromofluorobenzene	*1363*	0	*1396*	0	*97.6*	*70-130*	0	
Surr: Dibromofluoromethane	*1329*	0	*1396*	0	*95.2*	*70-130*	0	
Surr: Toluene-d8	*1335*	0	*1396*	0	*95.6*	*70-130*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152017** Instrument ID **VMS11** Method: **SW8260C**

MSD Sample ID: **20021006-56A MSD** Units: **µg/Kg-dry** Analysis Date: **2/21/2020 09:50 AM**

Client ID: **S-11R 5-6'** Run ID: **VMS11_200220B** SeqNo: **6263543** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1271	45	1510	0	84.2	75-125	1130	11.8	30	
1,1,1-Trichloroethane	1268	45	1510	0	84	70-135	1091	15	30	
1,1,2,2-Tetrachloroethane	707.4	45	1510	0	46.8	55-130	817.8	14.5	30	S
1,1,2-Trichloroethane	1404	45	1510	0	93	60-125	1287	8.74	30	
1,1-Dichloroethane	1265	45	1510	0	83.8	75-125	1125	11.8	30	
1,1-Dichloroethene	1271	45	1510	0	84.2	76-148	1168	8.48	30	
1,2,3-Trichloropropane	1284	45	1510	0	85	65-130	1138	12	30	
1,2,4-Trichlorobenzene	1223	150	1510	0	81	65-130	1033	16.8	30	
1,2,4-Trimethylbenzene	1292	45	1510	0	85.6	65-135	1131	13.3	30	
1,2-Dibromo-3-chloropropane	1080	150	1510	0	71.6	40-135	985.9	9.14	30	
1,2-Dibromoethane	1335	45	1510	0	88.4	80-195	1230	8.16	30	
1,2-Dichlorobenzene	1375	45	1510	0	91	75-120	1182	15.1	30	
1,2-Dichloroethane	1469	150	1510	0	97.3	70-135	1316	11	30	
1,2-Dichloropropane	1366	45	1510	0	90.4	70-120	1209	12.2	30	
1,3,5-Trimethylbenzene	1352	150	1510	0	89.6	65-135	1198	12.1	30	
1,3-Dichlorobenzene	1355	45	1510	0	89.8	70-125	1153	16.1	30	
1,4-Dichlorobenzene	1373	45	1510	0	90.9	70-125	1222	11.6	30	
2-Butanone	1925	300	1510	0	128	30-160	1862	3.36	30	
2-Hexanone	2158	45	1510	0	143	45-145	1854	15.1	30	
4-Methyl-2-pentanone	1431	45	1510	0	94.8	74-176	1365	4.72	30	
Acetone	2871	150	1510	0	190	20-160	2666	7.41	30	S
Acrylonitrile	1336	150	1510	0	88.4	70-135	1204	10.3	30	
Benzene	1345	45	1510	0	89	75-125	1179	13.1	30	
Bromochloromethane	1322	45	1510	0	87.6	74-134	1221	7.94	30	
Bromodichloromethane	1292	45	1510	0	85.6	70-130	1128	13.6	30	
Bromoform	1071	45	1510	0	71	55-135	939.9	13.1	30	
Bromomethane	506.6	150	1510	0	33.6	50-170	424.2	17.7	30	S
Carbon disulfide	1232	45	1510	0	81.6	45-160	1078	13.3	30	
Carbon tetrachloride	1177	45	1510	0	78	65-135	1052	11.3	30	
Chlorobenzene	1371	45	1510	0	90.8	75-125	1241	9.94	30	
Chloroethane	996.6	150	1510	0	66	40-155	940.6	5.78	30	
Chloroform	1299	45	1510	0	86	66-140	1159	11.4	30	
Chloromethane	1385	150	1510	0	91.7	50-144	1234	11.5	30	
cis-1,2-Dichloroethene	1250	45	1510	0	82.8	65-125	1076	15	30	
cis-1,3-Dichloropropene	1204	45	1510	0	79.8	70-125	1057	13	30	
Dibromochloromethane	1120	45	1510	0	74.2	65-135	985.9	12.8	30	
Dibromomethane	1481	45	1510	0	98.1	75-130	1271	15.3	30	
Dichlorodifluoromethane	1641	150	1510	0	109	35-135	1458	11.9	30	
Diethyl ether	1286	45	1510	0	85.2	67-150	1183	8.29	30	
Ethylbenzene	1339	45	1510	0	88.7	75-125	1192	11.7	30	
Hexachloroethane	983	150	1510	0	65.1	51-122	845.7	15	30	
Isopropylbenzene	1327	45	1510	0	87.8	75-130	1175	12.1	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **152017** Instrument ID **VMS11** Method: **SW8260C**

m,p-Xylene	2695	91	3020	0	89.2	80-125	2365	13	30	
Methyl iodide	1298	760	1510	0	86	64-180	1024	23.6	30	
Methyl tert-butyl ether	1428	45	1510	0	94.6	75-125	1342	6.15	30	
Methylene chloride	1402	380	1510	0	92.8	55-145	1262	10.5	30	
Naphthalene	1355	150	1510	0	89.8	40-140	1361	0.398	30	
n-Propylbenzene	1310	45	1510	0	86.8	65-135	1160	12.2	30	
o-Xylene	1352	45	1510	0	89.6	75-125	1207	11.3	30	
Styrene	1287	45	1510	0	85.2	80-138	1141	12.1	30	
Tetrachloroethene	2501	45	1510	0	166	67-167	2227	11.6	30	
Toluene	1345	45	1510	0	89	70-125	1191	12.1	30	
trans-1,2-Dichloroethene	1311	45	1510	0	86.8	65-135	1149	13.1	30	
trans-1,3-Dichloropropene	1111	45	1510	0	73.6	59-129	1006	9.87	30	
trans-1,4-Dichloro-2-butene	826.7	45	1510	0	54.8	62-112	747.3	10.1	30	S
Trichloroethene	1934	45	1510	0	128	75-125	1520	24	30	S
Trichlorofluoromethane	1361	45	1510	0	90.1	25-185	1225	10.5	30	
Vinyl chloride	1157	45	1510	0	76.6	60-125	1009	13.7	30	
Xylenes, Total	4047	140	4530	0	89.3	75-125	3573	12.4	30	
Surr: 1,2-Dichloroethane-d4	*1441*	0	*1510*	0	*95.4*	*70-130*	1330	*8.04*	*30*	
Surr: 4-Bromofluorobenzene	*1440*	0	*1510*	0	*95.4*	*70-130*	1363	*5.5*	*30*	
Surr: Dibromofluoromethane	*1450*	0	*1510*	0	*96*	*70-130*	1329	*8.72*	*30*	
Surr: Toluene-d8	*1422*	0	*1510*	0	*94.2*	*70-130*	1335	*6.36*	*30*	

The following samples were analyzed in this batch:

20021006-39A	20021006-40A	20021006-41A
20021006-42A	20021006-43A	20021006-44A
20021006-45A	20021006-46A	20021006-47A
20021006-48A	20021006-49A	20021006-50A
20021006-51A	20021006-52A	20021006-53A
20021006-54A	20021006-55A	20021006-56A
20021006-57A	20021006-58A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152043** Instrument ID **VMS9** Method: **SW8260C**

MBLK Sample ID: **MBLK-152043-152043** Units: **µg/Kg-dry** Analysis Date: **2/19/2020 08:31 PM**

Client ID: Run ID: **VMS9_200219A** SeqNo: **6261322** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	30								
1,1,1-Trichloroethane	ND	30								
1,1,2,2-Tetrachloroethane	ND	30								
1,1,2-Trichloroethane	ND	30								
1,1,2-Trichlorotrifluoroethane	ND	30								
1,1-Dichloroethane	ND	30								
1,1-Dichloroethene	ND	30								
1,2,3-Trichloropropane	ND	30								
1,2,4-Trichlorobenzene	ND	100								
1,2,4-Trimethylbenzene	ND	30								
1,2-Dibromo-3-chloropropane	ND	100								
1,2-Dibromoethane	ND	30								
1,2-Dichlorobenzene	ND	30								
1,2-Dichloroethane	ND	100								
1,2-Dichloropropane	ND	30								
1,3,5-Trimethylbenzene	ND	100								
1,3-Dichlorobenzene	ND	30								
1,4-Dichlorobenzene	ND	30								
2-Butanone	ND	200								
2-Hexanone	ND	30								
2-Methylnaphthalene	ND	100								
4-Methyl-2-pentanone	ND	30								
Acetone	ND	100								
Acrylonitrile	ND	100								
Benzene	ND	30								
Bromochloromethane	ND	30								
Bromodichloromethane	ND	30								
Bromoform	ND	30								
Bromomethane	ND	100								
Carbon disulfide	ND	30								
Carbon tetrachloride	ND	30								
Chlorobenzene	ND	30								
Chloroethane	ND	100								
Chloroform	ND	30								
Chloromethane	ND	100								
cis-1,2-Dichloroethene	ND	30								
cis-1,3-Dichloropropene	ND	30								
Dibromochloromethane	ND	30								
Dibromomethane	ND	30								
Dichlorodifluoromethane	ND	100								
Diethyl ether	ND	30								
Ethylbenzene	ND	30								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **152043** Instrument ID **VMS9** Method: **SW8260C**

Hexachloroethane	ND	100					
Isopropylbenzene	ND	30					
m,p-Xylene	ND	60					
Methyl iodide	804	500					
Methyl tert-butyl ether	ND	30					
Methylene chloride	ND	250					
Naphthalene	ND	100					
n-Propylbenzene	ND	30					
o-Xylene	ND	30					
Styrene	ND	30					
Tetrachloroethene	ND	30					
Toluene	ND	30					
trans-1,2-Dichloroethene	ND	30					
trans-1,3-Dichloropropene	ND	30					
trans-1,4-Dichloro-2-butene	ND	30					
Trichloroethene	ND	30					
Trichlorofluoromethane	ND	30					
Vinyl acetate	ND	250					
Vinyl chloride	ND	30					
Xylenes, Total	ND	90					
Surr: 1,2-Dichloroethane-d4	*1012*	0	*1000*	0	*101*	*70-130*	0
Surr: 4-Bromofluorobenzene	*976*	0	*1000*	0	*97.6*	*70-130*	0
Surr: Dibromofluoromethane	*876.5*	0	*1000*	0	*87.6*	*70-130*	0
Surr: Toluene-d8	*1010*	0	*1000*	0	*101*	*70-130*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152043** Instrument ID **VMS9** Method: **SW8260C**

LCS Sample ID: **LCS-152043-152043** Units: **µg/Kg-dry** Analysis Date: **2/19/2020 07:28 PM**

Client ID: Run ID: **VMS9_200219A** SeqNo: **6261321** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	912.5	30	1000	0	91.2	75-125	0			
1,1,1-Trichloroethane	926.5	30	1000	0	92.6	70-135	0			
1,1,2,2-Tetrachloroethane	924.5	30	1000	0	92.4	55-130	0			
1,1,2-Trichloroethane	991.5	30	1000	0	99.2	60-125	0			
1,1-Dichloroethane	1009	30	1000	0	101	75-125	0			
1,1-Dichloroethene	1024	30	1000	0	102	76-148	0			
1,2,3-Trichloropropane	951.5	30	1000	0	95.2	65-130	0			
1,2,4-Trichlorobenzene	989.5	100	1000	0	99	65-130	0			
1,2,4-Trimethylbenzene	966	30	1000	0	96.6	65-135	0			
1,2-Dibromo-3-chloropropane	919	100	1000	0	91.9	40-135	0			
1,2-Dibromoethane	1386	30	1000	0	139	80-195	0			
1,2-Dichlorobenzene	998.5	30	1000	0	99.8	75-120	0			
1,2-Dichloroethane	1009	100	1000	0	101	70-135	0			
1,2-Dichloropropane	1004	30	1000	0	100	70-120	0			
1,3,5-Trimethylbenzene	1000	100	1000	0	100	65-135	0			
1,3-Dichlorobenzene	1030	30	1000	0	103	70-125	0			
1,4-Dichlorobenzene	1026	30	1000	0	103	70-125	0			
2-Butanone	1126	200	1000	0	113	30-160	0			
2-Hexanone	1106	30	1000	0	111	45-145	0			
4-Methyl-2-pentanone	1362	30	1000	0	136	74-176	0			
Acetone	1139	100	1000	0	114	20-160	0			
Acrylonitrile	1080	100	1000	0	108	70-135	0			
Benzene	1014	30	1000	0	101	75-125	0			
Bromochloromethane	1028	30	1000	0	103	74-134	0			
Bromodichloromethane	835.5	30	1000	0	83.6	70-130	0			
Bromoform	861	30	1000	0	86.1	55-135	0			
Bromomethane	1672	100	1000	0	167	50-170	0			
Carbon disulfide	1110	30	1000	0	111	45-160	0			
Carbon tetrachloride	881.5	30	1000	0	88.2	65-135	0			
Chlorobenzene	1004	30	1000	0	100	75-125	0			
Chloroethane	1074	100	1000	0	107	40-155	0			
Chloroform	938	30	1000	0	93.8	66-140	0			
Chloromethane	1128	100	1000	0	113	50-144	0			
cis-1,2-Dichloroethene	1097	30	1000	0	110	65-125	0			
cis-1,3-Dichloropropene	892	30	1000	0	89.2	70-125	0			
Dibromochloromethane	698	30	1000	0	69.8	65-135	0			
Dibromomethane	994	30	1000	0	99.4	75-130	0			
Dichlorodifluoromethane	1634	100	1000	0	163	35-135	0			S
Diethyl ether	1120	30	1000	0	112	67-150	0			
Ethylbenzene	998.5	30	1000	0	99.8	75-125	0			
Hexachloroethane	851	100	1000	0	85.1	51-122	0			
Isopropylbenzene	980	30	1000	0	98	75-130	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **152043** Instrument ID **VMS9** Method: **SW8260C**

m,p-Xylene	1994	60	2000	0	99.7	80-125	0	
Methyl iodide	3717	500	1000	0	372	64-180	0	S
Methyl tert-butyl ether	1309	30	1000	0	131	75-125	0	S
Methylene chloride	988.5	250	1000	0	98.8	55-145	0	
Naphthalene	941	100	1000	0	94.1	40-140	0	
n-Propylbenzene	974.5	30	1000	0	97.4	65-135	0	
o-Xylene	1018	30	1000	0	102	75-125	0	
Styrene	998	30	1000	0	99.8	80-138	0	
Tetrachloroethene	1102	30	1000	0	110	67-167	0	
Toluene	1012	30	1000	0	101	70-125	0	
trans-1,2-Dichloroethene	1035	30	1000	0	104	65-135	0	
trans-1,3-Dichloropropene	1019	30	1000	0	102	59-129	0	
trans-1,4-Dichloro-2-butene	987.5	30	1000	0	98.8	62-112	0	
Trichloroethene	968	30	1000	0	96.8	75-125	0	
Trichlorofluoromethane	931	30	1000	0	93.1	25-185	0	
Vinyl chloride	1094	30	1000	0	109	60-125	0	
Xylenes, Total	3012	90	3000	0	100	75-125	0	
Surr: 1,2-Dichloroethane-d4	*985*	0	*1000*	0	*98.5*	*70-130*	0	
Surr: 4-Bromofluorobenzene	*1006*	0	*1000*	0	*101*	*70-130*	0	
Surr: Dibromofluoromethane	*998*	0	*1000*	0	*99.8*	*70-130*	0	
Surr: Toluene-d8	*1008*	0	*1000*	0	*101*	*70-130*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152043** Instrument ID **VMS9** Method: **SW8260C**

MS Sample ID: **20021006-65A MS** Units: **µg/Kg-dry** Analysis Date: **2/20/2020 03:53 AM**

Client ID: **S-13R 4-5'** Run ID: **VMS9_200219A** SeqNo: **6261340** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1021	44	1458	0	70	75-125	0			S
1,1,1-Trichloroethane	976.9	44	1458	0	67	70-135	0			S
1,1,2,2-Tetrachloroethane	1156	44	1458	0	79.3	55-130	0			
1,1,2-Trichloroethane	1312	44	1458	0	90	60-125	0			
1,1-Dichloroethane	1287	44	1458	0	88.2	75-125	0			
1,1-Dichloroethene	1220	44	1458	0	83.7	76-148	0			
1,2,3-Trichloropropane	1372	44	1458	0	94.1	65-130	0			
1,2,4-Trichlorobenzene	1290	150	1458	0	88.4	65-130	0			
1,2,4-Trimethylbenzene	1269	44	1458	0	87	65-135	0			
1,2-Dibromo-3-chloropropane	1013	150	1458	0	69.5	40-135	0			
1,2-Dibromoethane	1739	44	1458	0	119	80-195	0			
1,2-Dichlorobenzene	1368	44	1458	0	93.8	75-120	0			
1,2-Dichloroethane	1376	150	1458	0	94.4	70-135	0			
1,2-Dichloropropane	1355	44	1458	0	93	70-120	0			
1,3,5-Trimethylbenzene	1295	150	1458	0	88.8	65-135	0			
1,3-Dichlorobenzene	1307	44	1458	0	89.6	70-125	0			
1,4-Dichlorobenzene	1320	44	1458	0	90.5	70-125	0			
2-Butanone	2450	290	1458	0	168	30-160	0			S
2-Hexanone	2192	44	1458	0	150	45-145	0			S
4-Methyl-2-pentanone	1609	44	1458	0	110	74-176	0			
Acetone	3306	150	1458	0	227	20-160	0			S
Acrylonitrile	1382	150	1458	0	94.8	70-135	0			
Benzene	1320	44	1458	0	90.6	75-125	0			
Bromochloromethane	1362	44	1458	0	93.4	74-134	0			
Bromodichloromethane	901.1	44	1458	0	61.8	70-130	0			S
Bromoform	931.7	44	1458	0	63.9	55-135	0			
Bromomethane	118.1	150	1458	0	8.1	50-170	0			JS
Carbon disulfide	890.9	44	1458	0	61.1	45-160	0			
Carbon tetrachloride	863.2	44	1458	0	59.2	65-135	0			S
Chlorobenzene	1315	44	1458	0	90.2	75-125	0			
Chloroethane	1389	150	1458	0	95.2	40-155	0			
Chloroform	1169	44	1458	0	80.2	66-140	0			
Chloromethane	1460	150	1458	0	100	50-144	0			
cis-1,2-Dichloroethene	1242	44	1458	0	85.2	65-125	0			
cis-1,3-Dichloropropene	928.8	44	1458	0	63.7	70-125	0			S
Dibromochloromethane	740	44	1458	0	50.8	65-135	0			S
Dibromomethane	1277	44	1458	0	87.6	75-130	0			
Dichlorodifluoromethane	1978	150	1458	0	136	35-135	0			S
Diethyl ether	1363	44	1458	0	93.5	67-150	0			
Ethylbenzene	1300	44	1458	0	89.2	75-125	0			
Hexachloroethane	744.4	150	1458	0	51	51-122	0			
Isopropylbenzene	1250	44	1458	0	85.7	75-130	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **152043** Instrument ID **VMS9** Method: **SW8260C**

m,p-Xylene	2566	87	2916	0	88	80-125	0	
Methyl iodide	3125	730	1458	0	214	64-180	0	S
Methyl tert-butyl ether	1598	44	1458	0	110	75-125	0	
Methylene chloride	1373	360	1458	0	94.2	55-145	0	
Naphthalene	1360	150	1458	0	93.3	40-140	0	
n-Propylbenzene	1243	44	1458	0	85.2	65-135	0	
o-Xylene	1346	44	1458	0	92.3	75-125	0	
Styrene	1325	44	1458	0	90.8	80-138	0	
Tetrachloroethene	2299	44	1458	0	158	67-167	0	
Toluene	1311	44	1458	0	89.9	70-125	0	
trans-1,2-Dichloroethene	1282	44	1458	0	88	65-135	0	
trans-1,3-Dichloropropene	1097	44	1458	0	75.2	59-129	0	
trans-1,4-Dichloro-2-butene	1177	44	1458	0	80.7	62-112	0	
Trichloroethene	1230	44	1458	0	84.4	75-125	0	
Trichlorofluoromethane	1086	44	1458	0	74.5	25-185	0	
Vinyl chloride	1311	44	1458	0	89.9	60-125	0	
Xylenes, Total	3912	130	4374	0	89.4	75-125	0	
Surr: 1,2-Dichloroethane-d4	*1431*	0	*1458*	0	*98.2*	*70-130*	0	
Surr: 4-Bromofluorobenzene	*1500*	0	*1458*	0	*103*	*70-130*	0	
Surr: Dibromofluoromethane	*1298*	0	*1458*	0	*89*	*70-130*	0	
Surr: Toluene-d8	*1486*	0	*1458*	0	*102*	*70-130*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152043** Instrument ID **VMS9** Method: **SW8260C**

MSD Sample ID: **20021006-65A MSD** Units: **µg/Kg-dry** Analysis Date: **2/20/2020 04:14 AM**

Client ID: **S-13R 4-5'** Run ID: **VMS9_200219A** SeqNo: **6261341** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1068	47	1554	0	68.8	75-125	1021	4.47	30	S
1,1,1-Trichloroethane	1108	47	1554	0	71.3	70-135	976.9	12.5	30	
1,1,2,2-Tetrachloroethane	764.3	47	1554	0	49.2	55-130	1156	40.8	30	SR
1,1,2-Trichloroethane	1320	47	1554	0	85	60-125	1312	0.62	30	
1,1-Dichloroethane	1322	47	1554	0	85.1	75-125	1287	2.7	30	
1,1-Dichloroethene	1310	47	1554	0	84.3	76-148	1220	7.05	30	
1,2,3-Trichloropropane	1359	47	1554	0	87.4	65-130	1372	0.99	30	
1,2,4-Trichlorobenzene	1382	160	1554	0	89	65-130	1290	6.9	30	
1,2,4-Trimethylbenzene	1281	47	1554	0	82.4	65-135	1269	0.91	30	
1,2-Dibromo-3-chloropropane	1056	160	1554	0	68	40-135	1013	4.08	30	
1,2-Dibromoethane	1711	47	1554	0	110	80-195	1739	1.6	30	
1,2-Dichlorobenzene	1411	47	1554	0	90.8	75-120	1368	3.14	30	
1,2-Dichloroethane	1416	160	1554	0	91.2	70-135	1376	2.89	30	
1,2-Dichloropropane	1369	47	1554	0	88.1	70-120	1355	0.98	30	
1,3,5-Trimethylbenzene	1312	160	1554	0	84.4	65-135	1295	1.32	30	
1,3-Dichlorobenzene	1348	47	1554	0	86.8	70-125	1307	3.05	30	
1,4-Dichlorobenzene	1377	47	1554	0	88.6	70-125	1320	4.27	30	
2-Butanone	2988	310	1554	0	192	30-160	2450	19.8	30	S
2-Hexanone	2643	47	1554	0	170	45-145	2192	18.7	30	S
4-Methyl-2-pentanone	1721	47	1554	0	111	74-176	1609	6.74	30	
Acetone	3898	160	1554	0	251	20-160	3306	16.4	30	S
Acrylonitrile	1526	160	1554	0	98.2	70-135	1382	9.91	30	
Benzene	1348	47	1554	0	86.8	75-125	1320	2.11	30	
Bromochloromethane	1429	47	1554	0	92	74-134	1362	4.83	30	
Bromodichloromethane	947.7	47	1554	0	61	70-130	901.1	5.04	30	S
Bromoform	955.4	47	1554	0	61.5	55-135	931.7	2.51	30	
Bromomethane	201.2	160	1554	0	13	50-170	118.1	52	30	SR
Carbon disulfide	1107	47	1554	0	71.2	45-160	890.9	21.6	30	
Carbon tetrachloride	950.8	47	1554	0	61.2	65-135	863.2	9.65	30	S
Chlorobenzene	1321	47	1554	0	85	75-125	1315	0.46	30	
Chloroethane	1257	160	1554	0	80.9	40-155	1389	9.98	30	
Chloroform	1209	47	1554	0	77.8	66-140	1169	3.43	30	
Chloromethane	1445	160	1554	0	93	50-144	1460	1.02	30	
cis-1,2-Dichloroethene	1289	47	1554	0	83	65-125	1242	3.72	30	
cis-1,3-Dichloropropene	978	47	1554	0	63	70-125	928.8	5.15	30	S
Dibromochloromethane	751.9	47	1554	0	48.4	65-135	740	1.6	30	S
Dibromomethane	1308	47	1554	0	84.2	75-130	1277	2.38	30	
Dichlorodifluoromethane	2247	160	1554	0	145	35-135	1978	12.7	30	S
Diethyl ether	1584	47	1554	0	102	67-150	1363	15	30	
Ethylbenzene	1319	47	1554	0	84.9	75-125	1300	1.45	30	
Hexachloroethane	882.4	160	1554	0	56.8	51-122	744.4	17	30	
Isopropylbenzene	1276	47	1554	0	82.2	75-130	1250	2.11	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **152043** Instrument ID **VMS9** Method: **SW8260C**

m,p-Xylene	2687	93	3107	0	86.5	80-125	2566	4.59	30	
Methyl iodide	4255	780	1554	0	274	64-180	3125	30.6	30	SR
Methyl tert-butyl ether	1794	47	1554	0	115	75-125	1598	11.5	30	
Methylene chloride	1377	390	1554	0	88.6	55-145	1373	0.32	30	
Naphthalene	1404	160	1554	0	90.4	40-140	1360	3.18	30	
n-Propylbenzene	1289	47	1554	0	83	65-135	1243	3.6	30	
o-Xylene	1349	47	1554	0	86.8	75-125	1346	0.253	30	
Styrene	1346	47	1554	0	86.6	80-138	1325	1.61	30	
Tetrachloroethene	2549	47	1554	0	164	67-167	2299	10.3	30	
Toluene	1376	47	1554	0	88.6	70-125	1311	4.88	30	
trans-1,2-Dichloroethene	1329	47	1554	0	85.6	65-135	1282	3.57	30	
trans-1,3-Dichloropropene	1143	47	1554	0	73.6	59-129	1097	4.12	30	
trans-1,4-Dichloro-2-butene	1335	47	1554	0	85.9	62-112	1177	12.6	30	
Trichloroethene	1686	47	1554	0	109	75-125	1230	31.3	30	R
Trichlorofluoromethane	1205	47	1554	0	77.6	25-185	1086	10.3	30	
Vinyl chloride	1428	47	1554	0	92	60-125	1311	8.59	30	
Xylenes, Total	4036	140	4661	0	86.6	75-125	3912	3.12	30	
Surr: 1,2-Dichloroethane-d4	*1529*	0	*1554*	0	*98.4*	*70-130*	1431	*6.59*	*30*	
Surr: 4-Bromofluorobenzene	*1552*	0	*1554*	0	*99.9*	*70-130*	1500	*3.38*	*30*	
Surr: Dibromofluoromethane	*1396*	0	*1554*	0	*89.8*	*70-130*	1298	*7.29*	*30*	
Surr: Toluene-d8	*1545*	0	*1554*	0	*99.4*	*70-130*	1486	*3.91*	*30*	

The following samples were analyzed in this batch:

20021006-59A	20021006-60A	20021006-61A
20021006-62A	20021006-63A	20021006-64A
20021006-65A	20021006-66A	20021006-67A
20021006-68A	20021006-69A	20021006-70A
20021006-71A	20021006-72A	20021006-73A
20021006-74A	20021006-75A	20021006-76A
20021006-77A	20021006-78A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152067** Instrument ID **VMS6** Method: **SW8260C**

MBLK Sample ID: **MBLK-152067-152067** Units: **µg/Kg-dry** Analysis Date: **2/20/2020 02:28 PM**

Client ID: Run ID: **VMS6_200220A** SeqNo: **6262161** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	30	0	0	0	0-0	0			
1,1,1-Trichloroethane	ND	30	0	0	0	0-0	0			
1,1,2,2-Tetrachloroethane	ND	30	0	0	0	0-0	0			
1,1,2-Trichloroethane	ND	30	0	0	0	0-0	0			
1,1,2-Trichlorotrifluoroethane	ND	30	0	0	0		0			
1,1-Dichloroethane	ND	30	0	0	0	0-0	0			
1,1-Dichloroethene	ND	30	0	0	0	0-0	0			
1,2,3-Trichloropropane	ND	30	0	0	0	0-0	0			
1,2,4-Trichlorobenzene	ND	100	0	0	0	0-0	0			
1,2,4-Trimethylbenzene	ND	30	0	0	0	0-0	0			
1,2-Dibromo-3-chloropropane	ND	100	0	0	0	0-0	0			
1,2-Dibromoethane	ND	30	0	0	0	0-0	0			
1,2-Dichlorobenzene	ND	30	0	0	0	0-0	0			
1,2-Dichloroethane	ND	100	0	0	0	0-0	0			
1,2-Dichloropropane	ND	30	0	0	0	0-0	0			
1,3,5-Trimethylbenzene	ND	100	0	0	0	0-0	0			
1,3-Dichlorobenzene	ND	30	0	0	0	0-0	0			
1,4-Dichlorobenzene	ND	30	0	0	0	0-0	0			
2-Butanone	ND	200	0	0	0	0-0	0			
2-Hexanone	ND	30	0	0	0	0-0	0			
2-Methylnaphthalene	ND	100	0	0	0	0-0	0			
4-Methyl-2-pentanone	ND	30	0	0	0	0-0	0			
Acetone	ND	100	0	0	0	0-0	0			
Acrylonitrile	ND	100	0	0	0	0-0	0			
Benzene	ND	30	0	0	0	0-0	0			
Bromochloromethane	ND	30	0	0	0	0-0	0			
Bromodichloromethane	ND	30	0	0	0	0-0	0			
Bromoform	ND	30	0	0	0	0-0	0			
Bromomethane	206.5	100	0	0	0	0-0	0			
Carbon disulfide	ND	30	0	0	0	0-0	0			
Carbon tetrachloride	ND	30	0	0	0	0-0	0			
Chlorobenzene	ND	30	0	0	0	0-0	0			
Chloroethane	ND	100	0	0	0	0-0	0			
Chloroform	ND	30	0	0	0	0-0	0			
Chloromethane	ND	100	0	0	0	0-0	0			
cis-1,2-Dichloroethene	ND	30	0	0	0	0-0	0			
cis-1,3-Dichloropropene	ND	30	0	0	0	0-0	0			
Dibromochloromethane	ND	30	0	0	0	0-0	0			
Dibromomethane	ND	30	0	0	0	0-0	0			
Dichlorodifluoromethane	ND	100	0	0	0	0-0	0			
Diethyl ether	ND	30	0	0	0	0-0	0			
Ethylbenzene	ND	30	0	0	0	0-0	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **152067** Instrument ID **VMS6** Method: **SW8260C**

Hexachloroethane	ND	100	0	0	0	0-0	0
Isopropylbenzene	ND	30	0	0	0	0-0	0
m,p-Xylene	ND	60	0	0	0	0-0	0
Methyl iodide	ND	500	0	0	0	0-0	0
Methyl tert-butyl ether	ND	30	0	0	0	0-0	0
Methylene chloride	ND	250	0	0	0	0-0	0
Naphthalene	ND	100	0	0	0	0-0	0
n-Propylbenzene	ND	30	0	0	0	0-0	0
o-Xylene	ND	30	0	0	0	0-0	0
Styrene	ND	30	0	0	0	0-0	0
Tetrachloroethene	ND	30	0	0	0	0-0	0
Toluene	ND	30	0	0	0	0-0	0
trans-1,2-Dichloroethene	ND	30	0	0	0	0-0	0
trans-1,3-Dichloropropene	ND	30	0	0	0	0-0	0
trans-1,4-Dichloro-2-butene	ND	30	0	0	0	0-0	0
Trichloroethene	ND	30	0	0	0	0-0	0
Trichlorofluoromethane	ND	30	0	0	0	0-0	0
Vinyl acetate	ND	250	0	0	0	0-0	0
Vinyl chloride	ND	30	0	0	0	0-0	0
Xylenes, Total	ND	90	0	0	0	0-0	0
Surr: 1,2-Dichloroethane-d4	*1092*	0	*1000*	0	*109*	*70-130*	0
Surr: 4-Bromofluorobenzene	*942*	0	*1000*	0	*94.2*	*70-130*	0
Surr: Dibromofluoromethane	*978.5*	0	*1000*	0	*97.8*	*70-130*	0
Surr: Toluene-d8	*1006*	0	*1000*	0	*101*	*70-130*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152067** Instrument ID **VMS6** Method: **SW8260C**

LCS Sample ID: **LCS-152067-152067** Units: **µg/Kg-dry** Analysis Date: **2/20/2020 12:50 PM**

Client ID: Run ID: **VMS6_200220A** SeqNo: **6262303** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	834	30	1000	0	83.4	75-125	0			
1,1,1-Trichloroethane	894	30	1000	0	89.4	70-135	0			
1,1,2,2-Tetrachloroethane	923.5	30	1000	0	92.4	55-130	0			
1,1,2-Trichloroethane	955.5	30	1000	0	95.6	60-125	0			
1,1-Dichloroethane	992	30	1000	0	99.2	75-125	0			
1,1-Dichloroethene	1034	30	1000	0	103	76-148	0			
1,2,3-Trichloropropane	954.5	30	1000	0	95.4	65-130	0			
1,2,4-Trichlorobenzene	900.5	100	1000	0	90	65-130	0			
1,2,4-Trimethylbenzene	913.5	30	1000	0	91.4	65-135	0			
1,2-Dibromo-3-chloropropane	786.5	100	1000	0	78.6	40-135	0			
1,2-Dibromoethane	1073	30	1000	0	107	80-195	0			
1,2-Dichlorobenzene	906.5	30	1000	0	90.6	75-120	0			
1,2-Dichloroethane	957.5	100	1000	0	95.8	70-135	0			
1,2-Dichloropropane	1004	30	1000	0	100	70-120	0			
1,3,5-Trimethylbenzene	931	100	1000	0	93.1	65-135	0			
1,3-Dichlorobenzene	922	30	1000	0	92.2	70-125	0			
1,4-Dichlorobenzene	904.5	30	1000	0	90.4	70-125	0			
2-Butanone	1148	200	1000	0	115	30-160	0			
2-Hexanone	931	30	1000	0	93.1	45-145	0			
4-Methyl-2-pentanone	1291	30	1000	0	129	74-176	0			
Acetone	1140	100	1000	0	114	20-160	0			
Acrylonitrile	998	100	1000	0	99.8	70-135	0			
Benzene	971.5	30	1000	0	97.2	75-125	0			
Bromochloromethane	1000	30	1000	0	100	74-134	0			
Bromodichloromethane	959.5	30	1000	0	96	70-130	0			
Bromoform	700	30	1000	0	70	55-135	0			
Bromomethane	960.5	100	1000	0	96	50-170	0			B
Carbon disulfide	1006	30	1000	0	101	45-160	0			
Carbon tetrachloride	842	30	1000	0	84.2	65-135	0			
Chlorobenzene	923	30	1000	0	92.3	75-125	0			
Chloroethane	996.5	100	1000	0	99.6	40-155	0			
Chloroform	932.5	30	1000	0	93.2	66-140	0			
Chloromethane	975.5	100	1000	0	97.6	50-144	0			
cis-1,2-Dichloroethene	988	30	1000	0	98.8	65-125	0			
cis-1,3-Dichloropropene	941	30	1000	0	94.1	70-125	0			
Dibromochloromethane	738	30	1000	0	73.8	65-135	0			
Dibromomethane	1022	30	1000	0	102	75-130	0			
Dichlorodifluoromethane	1089	100	1000	0	109	35-135	0			
Diethyl ether	1122	30	1000	0	112	67-150	0			
Ethylbenzene	902	30	1000	0	90.2	75-125	0			
Hexachloroethane	822.5	100	1000	0	82.2	51-122	0			
Isopropylbenzene	894	30	1000	0	89.4	75-130	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **152067** Instrument ID **VMS6** Method: **SW8260C**

m,p-Xylene	1809	60	2000	0	90.4	80-125	0	
Methyl iodide	1123	500	1000	0	112	64-180	0	
Methyl tert-butyl ether	1301	30	1000	0	130	75-125	0	S
Methylene chloride	1110	250	1000	0	111	55-145	0	
Naphthalene	886	100	1000	0	88.6	40-140	0	
n-Propylbenzene	890.5	30	1000	0	89	65-135	0	
o-Xylene	933.5	30	1000	0	93.4	75-125	0	
Styrene	945	30	1000	0	94.5	80-138	0	
Tetrachloroethene	920	30	1000	0	92	67-167	0	
Toluene	902	30	1000	0	90.2	70-125	0	
trans-1,2-Dichloroethene	1027	30	1000	0	103	65-135	0	
trans-1,3-Dichloropropene	779	30	1000	0	77.9	59-129	0	
trans-1,4-Dichloro-2-butene	554.5	30	1000	0	55.4	62-112	0	S
Trichloroethene	926.5	30	1000	0	92.6	75-125	0	
Trichlorofluoromethane	817.5	30	1000	0	81.8	25-185	0	
Vinyl chloride	915.5	30	1000	0	91.6	60-125	0	
Xylenes, Total	2742	90	3000	0	91.4	75-125	0	
Surr: 1,2-Dichloroethane-d4	*1019*	0	*1000*	0	*102*	*70-130*	0	
Surr: 4-Bromofluorobenzene	*981.5*	0	*1000*	0	*98.2*	*70-130*	0	
Surr: Dibromofluoromethane	*1032*	0	*1000*	0	*103*	*70-130*	0	
Surr: Toluene-d8	*966.5*	0	*1000*	0	*96.6*	*70-130*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152067** Instrument ID **VMS6** Method: **SW8260C**

MS Sample ID: **20021077-01A MS** Units: **µg/Kg-dry** Analysis Date: **2/22/2020 08:31 AM**

Client ID: Run ID: **VMS6_200221A** SeqNo: **6266852** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1102	45	1498	0	73.6	75-125	0			S
1,1,1-Trichloroethane	1354	45	1498	0	90.4	70-135	0			
1,1,2,2-Tetrachloroethane	1408	45	1498	0	94	55-130	0			
1,1,2-Trichloroethane	1448	45	1498	0	96.6	60-125	0			
1,1-Dichloroethane	1437	45	1498	0	95.9	75-125	0			
1,1-Dichloroethene	1556	45	1498	0	104	76-148	0			
1,2,3-Trichloropropane	1331	45	1498	0	88.8	65-130	0			
1,2,4-Trichlorobenzene	1346	150	1498	0	89.8	65-130	0			
1,2,4-Trimethylbenzene	1479	45	1498	281.9	79.9	65-135	0			
1,2-Dibromo-3-chloropropane	974.6	150	1498	0	65	40-135	0			
1,2-Dibromoethane	1515	45	1498	0	101	80-195	0			
1,2-Dichlorobenzene	1417	45	1498	0	94.6	75-120	0			
1,2-Dichloroethane	1462	150	1498	0	97.6	70-135	0			
1,2-Dichloropropane	1350	45	1498	0	90.1	70-120	0			
1,3,5-Trimethylbenzene	1406	150	1498	260.7	76.5	65-135	0			
1,3-Dichlorobenzene	1389	45	1498	0	92.7	70-125	0			
1,4-Dichlorobenzene	1386	45	1498	0	92.5	70-125	0			
2-Butanone	1472	300	1498	0	98.2	30-160	0			
2-Hexanone	1153	45	1498	0	77	45-145	0			
4-Methyl-2-pentanone	1712	45	1498	0	114	74-176	0			
Acetone	1553	150	1498	318.9	82.4	20-160	0			
Acrylonitrile	1362	150	1498	0	90.9	70-135	0			
Benzene	1470	45	1498	0	98.2	75-125	0			
Bromochloromethane	1414	45	1498	0	94.4	74-134	0			
Bromodichloromethane	1133	45	1498	0	75.6	70-130	0			
Bromoform	1005	45	1498	0	67	55-135	0			
Bromomethane	866	150	1498	0	57.8	50-170	0			B
Carbon disulfide	1181	45	1498	0	78.8	45-160	0			
Carbon tetrachloride	1325	45	1498	0	88.4	65-135	0			
Chlorobenzene	1408	45	1498	0	94	75-125	0			
Chloroethane	1560	150	1498	0	104	40-155	0			
Chloroform	1402	45	1498	0	93.6	66-140	0			
Chloromethane	1477	150	1498	0	98.6	50-144	0			
cis-1,2-Dichloroethene	1332	45	1498	0	88.9	65-125	0			
cis-1,3-Dichloropropene	1157	45	1498	0	77.2	70-125	0			
Dibromochloromethane	1007	45	1498	0	67.2	65-135	0			
Dibromomethane	1429	45	1498	0	95.4	75-130	0			
Dichlorodifluoromethane	1916	150	1498	0	128	35-135	0			
Diethyl ether	1318	45	1498	0	88	67-150	0			
Ethylbenzene	1431	45	1498	95.29	89.1	75-125	0			
Hexachloroethane	1047	150	1498	0	69.9	51-122	0			
Isopropylbenzene	1533	45	1498	356.7	78.5	75-130	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **152067** Instrument ID **VMS6** Method: **SW8260C**

m,p-Xylene	2921	90	2996	1288	54.5	80-125	0	S
Methyl iodide	1064	750	1498	0	71	64-180	0	
Methyl tert-butyl ether	1510	45	1498	0	101	75-125	0	
Methylene chloride	1533	370	1498	0	102	55-145	0	
Naphthalene	1378	150	1498	0	92	40-140	0	
n-Propylbenzene	1637	45	1498	1716	-5.29	65-135	0	S
o-Xylene	1458	45	1498	204	83.7	75-125	0	
Styrene	1470	45	1498	0	98.1	80-138	0	
Tetrachloroethene	1681	45	1498	0	112	67-167	0	
Toluene	1414	45	1498	422.1	66.2	70-125	0	S
trans-1,2-Dichloroethene	1434	45	1498	0	95.7	65-135	0	
trans-1,3-Dichloropropene	1020	45	1498	0	68.1	59-129	0	
trans-1,4-Dichloro-2-butene	921.4	45	1498	0	61.5	62-112	0	S
Trichloroethene	1434	45	1498	0	95.7	75-125	0	
Trichlorofluoromethane	1311	45	1498	0	87.5	25-185	0	
Vinyl chloride	1458	45	1498	0	97.3	60-125	0	
Xylenes, Total	4378	130	4495	1500	64	75-125	0	S
Surr: 1,2-Dichloroethane-d4	*1511*	0	*1498*	0	*101*	*70-130*	0	
Surr: 4-Bromofluorobenzene	*1482*	0	*1498*	0	*99*	*70-130*	0	
Surr: Dibromofluoromethane	*1475*	0	*1498*	0	*98.4*	*70-130*	0	
Surr: Toluene-d8	*1479*	0	*1498*	0	*98.8*	*70-130*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152067** Instrument ID **VMS6** Method: **SW8260C**

MS Sample ID: **20021077-01A MS** Units: **µg/Kg-dry** Analysis Date: **2/22/2020 08:31 AM**

Client ID: Run ID: **VMS6_200221A** SeqNo: **6266892** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1102	45	1498	0	73.6	75-125	0			S
1,1,1-Trichloroethane	1354	45	1498	0	90.4	70-135	0			
1,1,2,2-Tetrachloroethane	1408	45	1498	0	94	55-130	0			
1,1,2-Trichloroethane	1448	45	1498	0	96.6	60-125	0			
1,1-Dichloroethane	1437	45	1498	0	95.9	75-125	0			
1,1-Dichloroethene	1556	45	1498	0	104	76-148	0			
1,2,3-Trichloropropane	1331	45	1498	0	88.8	65-130	0			
1,2,4-Trichlorobenzene	1346	150	1498	0	89.8	65-130	0			
1,2,4-Trimethylbenzene	1479	45	1498	281.9	79.9	65-135	0			
1,2-Dibromo-3-chloropropane	974.6	150	1498	0	65	40-135	0			
1,2-Dibromoethane	1515	45	1498	0	101	80-195	0			
1,2-Dichlorobenzene	1417	45	1498	0	94.6	75-120	0			
1,2-Dichloroethane	1462	150	1498	0	97.6	70-135	0			
1,2-Dichloropropane	1350	45	1498	0	90.1	70-120	0			
1,3,5-Trimethylbenzene	1406	150	1498	260.7	76.5	65-135	0			
1,3-Dichlorobenzene	1389	45	1498	0	92.7	70-125	0			
1,4-Dichlorobenzene	1386	45	1498	0	92.5	70-125	0			
2-Butanone	1472	300	1498	0	98.2	30-160	0			
2-Hexanone	1153	45	1498	0	77	45-145	0			
4-Methyl-2-pentanone	1712	45	1498	0	114	74-176	0			
Acetone	1553	150	1498	318.9	82.4	20-160	0			
Acrylonitrile	1362	150	1498	0	90.9	70-135	0			
Benzene	1470	45	1498	0	98.2	75-125	0			
Bromochloromethane	1414	45	1498	0	94.4	74-134	0			
Bromodichloromethane	1133	45	1498	0	75.6	70-130	0			
Bromoform	1005	45	1498	0	67	55-135	0			
Bromomethane	866	150	1498	0	57.8	50-170	0			B
Carbon disulfide	1181	45	1498	0	78.8	45-160	0			
Carbon tetrachloride	1325	45	1498	0	88.4	65-135	0			
Chlorobenzene	1408	45	1498	0	94	75-125	0			
Chloroethane	1560	150	1498	0	104	40-155	0			
Chloroform	1402	45	1498	0	93.6	66-140	0			
Chloromethane	1477	150	1498	0	98.6	50-144	0			
cis-1,2-Dichloroethene	1332	45	1498	0	88.9	65-125	0			
cis-1,3-Dichloropropene	1157	45	1498	0	77.2	70-125	0			
Dibromochloromethane	1007	45	1498	0	67.2	65-135	0			
Dibromomethane	1429	45	1498	0	95.4	75-130	0			
Dichlorodifluoromethane	1916	150	1498	0	128	35-135	0			
Diethyl ether	1318	45	1498	0	88	67-150	0			
Ethylbenzene	1431	45	1498	95.29	89.1	75-125	0			
Hexachloroethane	1047	150	1498	0	69.9	51-122	0			
Isopropylbenzene	1533	45	1498	356.7	78.5	75-130	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **152067** Instrument ID **VMS6** Method: **SW8260C**

m,p-Xylene	2921	90	2996	1288	54.5	80-125	0	S
Methyl tert-butyl ether	1510	45	1498	0	101	75-125	0	
Methylene chloride	1533	370	1498	0	102	55-145	0	
Naphthalene	1378	150	1498	0	92	40-140	0	
n-Propylbenzene	1637	45	1498	1716	-5.29	65-135	0	S
o-Xylene	1458	45	1498	204	83.7	75-125	0	
Styrene	1470	45	1498	0	98.1	80-138	0	
Tetrachloroethene	1681	45	1498	0	112	67-167	0	
Toluene	1414	45	1498	422.1	66.2	70-125	0	S
trans-1,2-Dichloroethene	1434	45	1498	0	95.7	65-135	0	
trans-1,3-Dichloropropene	1020	45	1498	0	68.1	59-129	0	
trans-1,4-Dichloro-2-butene	921.4	45	1498	0	61.5	62-112	0	S
Trichloroethene	1434	45	1498	0	95.7	75-125	0	
Trichlorofluoromethane	1311	45	1498	0	87.5	25-185	0	
Vinyl chloride	1458	45	1498	0	97.3	60-125	0	
Xylenes, Total	4378	130	4495	1500	64	75-125	0	S
Surr: 1,2-Dichloroethane-d4	*1511*	0	*1498*	0	*101*	*70-130*	0	
Surr: 4-Bromofluorobenzene	*1482*	0	*1498*	0	*99*	*70-130*	0	
Surr: Dibromofluoromethane	*1475*	0	*1498*	0	*98.4*	*70-130*	0	
Surr: Toluene-d8	*1479*	0	*1498*	0	*98.8*	*70-130*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152067** Instrument ID **VMS6** Method: **SW8260C**

MSD Sample ID: **20021077-01A MSD** Units: **µg/Kg-dry** Analysis Date: **2/22/2020 08:55 AM**

Client ID: Run ID: **VMS6_200221A** SeqNo: **6266853** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1222	45	1511	0	80.8	75-125	1102	10.3	30	
1,1,1-Trichloroethane	1511	45	1511	0	100	70-135	1354	10.9	30	
1,1,2,2-Tetrachloroethane	1521	45	1511	0	101	55-130	1408	7.7	30	
1,1,2-Trichloroethane	1544	45	1511	0	102	60-125	1448	6.4	30	
1,1-Dichloroethane	1566	45	1511	0	104	75-125	1437	8.63	30	
1,1-Dichloroethene	1679	45	1511	0	111	76-148	1556	7.61	30	
1,2,3-Trichloropropane	1416	45	1511	0	93.7	65-130	1331	6.18	30	
1,2,4-Trichlorobenzene	1544	150	1511	0	102	65-130	1346	13.7	30	
1,2,4-Trimethylbenzene	1634	45	1511	281.9	89.4	65-135	1479	9.96	30	
1,2-Dibromo-3-chloropropane	1133	150	1511	0	75	40-135	974.6	15.1	30	
1,2-Dibromoethane	1659	45	1511	0	110	80-195	1515	9.07	30	
1,2-Dichlorobenzene	1579	45	1511	0	104	75-120	1417	10.8	30	
1,2-Dichloroethane	1585	150	1511	0	105	70-135	1462	8.08	30	
1,2-Dichloropropane	1501	45	1511	0	99.4	70-120	1350	10.6	30	
1,3,5-Trimethylbenzene	1524	150	1511	260.7	83.6	65-135	1406	8.06	30	
1,3-Dichlorobenzene	1573	45	1511	0	104	70-125	1389	12.5	30	
1,4-Dichlorobenzene	1567	45	1511	0	104	70-125	1386	12.3	30	
2-Butanone	1926	300	1511	0	127	30-160	1472	26.7	30	
2-Hexanone	1489	45	1511	0	98.5	45-145	1153	25.4	30	
4-Methyl-2-pentanone	1881	45	1511	0	124	74-176	1712	9.37	30	
Acetone	2723	150	1511	318.9	159	20-160	1553	54.7	30	R
Acrylonitrile	1449	150	1511	0	95.9	70-135	1362	6.22	30	
Benzene	1622	45	1511	0	107	75-125	1470	9.82	30	
Bromochloromethane	1494	45	1511	0	98.8	74-134	1414	5.47	30	
Bromodichloromethane	1316	45	1511	0	87.1	70-130	1133	15	30	
Bromoform	1138	45	1511	0	75.3	55-135	1005	12.5	30	
Bromomethane	1055	150	1511	0	69.8	50-170	866	19.7	30	B
Carbon disulfide	1360	45	1511	0	90	45-160	1181	14.1	30	
Carbon tetrachloride	1445	45	1511	0	95.6	65-135	1325	8.64	30	
Chlorobenzene	1535	45	1511	0	102	75-125	1408	8.69	30	
Chloroethane	1622	150	1511	0	107	40-155	1560	3.85	30	
Chloroform	1517	45	1511	0	100	66-140	1402	7.88	30	
Chloromethane	1642	150	1511	0	109	50-144	1477	10.6	30	
cis-1,2-Dichloroethene	1436	45	1511	0	95	65-125	1332	7.5	30	
cis-1,3-Dichloropropene	1295	45	1511	0	85.7	70-125	1157	11.3	30	
Dibromochloromethane	1124	45	1511	0	74.4	65-135	1007	11	30	
Dibromomethane	1578	45	1511	0	104	75-130	1429	9.88	30	
Dichlorodifluoromethane	1993	150	1511	0	132	35-135	1916	3.91	30	
Diethyl ether	1448	45	1511	0	95.8	67-150	1318	9.41	30	
Ethylbenzene	1575	45	1511	95.29	97.9	75-125	1431	9.63	30	
Hexachloroethane	1235	150	1511	0	81.7	51-122	1047	16.4	30	
Isopropylbenzene	1719	45	1511	356.7	90.1	75-130	1533	11.4	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **152067** Instrument ID **VMS6** Method: **SW8260C**

m,p-Xylene	3198	91	3023	1288	63.2	80-125	2921	9.06	30	S
Methyl iodide	1402	760	1511	0	92.8	64-180	1064	27.3	30	
Methyl tert-butyl ether	1585	45	1511	0	105	75-125	1510	4.85	30	
Methylene chloride	1628	380	1511	0	108	55-145	1533	5.96	30	
Naphthalene	1589	150	1511	0	105	40-140	1378	14.2	30	
n-Propylbenzene	2003	45	1511	1716	19	65-135	1637	20.1	30	S
o-Xylene	1619	45	1511	204	93.7	75-125	1458	10.5	30	
Styrene	1637	45	1511	0	108	80-138	1470	10.7	30	
Tetrachloroethene	2453	45	1511	0	162	67-167	1681	37.3	30	R
Toluene	1553	45	1511	422.1	74.8	70-125	1414	9.39	30	
trans-1,2-Dichloroethene	1511	45	1511	0	100	65-135	1434	5.21	30	
trans-1,3-Dichloropropene	1164	45	1511	0	77	59-129	1020	13.1	30	
trans-1,4-Dichloro-2-butene	983.8	45	1511	0	65.1	62-112	921.4	6.55	30	
Trichloroethene	1607	45	1511	0	106	75-125	1434	11.4	30	
Trichlorofluoromethane	1342	45	1511	0	88.8	25-185	1311	2.34	30	
Vinyl chloride	1517	45	1511	0	100	60-125	1458	4	30	
Xylenes, Total	4817	140	4534	1500	73.2	75-125	4378	9.54	30	S
Surr: 1,2-Dichloroethane-d4	*1595*	0	*1511*	0	*106*	*70-130*	1511	*5.42*	*30*	
Surr: 4-Bromofluorobenzene	*1533*	0	*1511*	0	*101*	*70-130*	1482	*3.36*	*30*	
Surr: Dibromofluoromethane	*1498*	0	*1511*	0	*99.2*	*70-130*	1475	*1.58*	*30*	
Surr: Toluene-d8	*1504*	0	*1511*	0	*99.5*	*70-130*	1479	*1.63*	*30*	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152067** Instrument ID **VMS6** Method: **SW8260C**

MSD Sample ID: **20021077-01A MSD** Units: **µg/Kg-dry** Analysis Date: **2/22/2020 08:55 AM**

Client ID: Run ID: **VMS6_200221A** SeqNo: **6266893** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1222	45	1511	0	80.8	75-125	1102	10.3	30	
1,1,1-Trichloroethane	1511	45	1511	0	100	70-135	1354	10.9	30	
1,1,2,2-Tetrachloroethane	1521	45	1511	0	101	55-130	1408	7.7	30	
1,1,2-Trichloroethane	1544	45	1511	0	102	60-125	1448	6.4	30	
1,1-Dichloroethane	1566	45	1511	0	104	75-125	1437	8.63	30	
1,1-Dichloroethene	1679	45	1511	0	111	76-148	1556	7.61	30	
1,2,3-Trichloropropane	1416	45	1511	0	93.7	65-130	1331	6.18	30	
1,2,4-Trichlorobenzene	1544	150	1511	0	102	65-130	1346	13.7	30	
1,2,4-Trimethylbenzene	1634	45	1511	281.9	89.4	65-135	1479	9.96	30	
1,2-Dibromo-3-chloropropane	1133	150	1511	0	75	40-135	974.6	15.1	30	
1,2-Dibromoethane	1659	45	1511	0	110	80-195	1515	9.07	30	
1,2-Dichlorobenzene	1579	45	1511	0	104	75-120	1417	10.8	30	
1,2-Dichloroethane	1585	150	1511	0	105	70-135	1462	8.08	30	
1,2-Dichloropropane	1501	45	1511	0	99.4	70-120	1350	10.6	30	
1,3,5-Trimethylbenzene	1524	150	1511	260.7	83.6	65-135	1406	8.06	30	
1,3-Dichlorobenzene	1573	45	1511	0	104	70-125	1389	12.5	30	
1,4-Dichlorobenzene	1567	45	1511	0	104	70-125	1386	12.3	30	
2-Butanone	1926	300	1511	0	127	30-160	1472	26.7	30	
2-Hexanone	1489	45	1511	0	98.5	45-145	1153	25.4	30	
4-Methyl-2-pentanone	1881	45	1511	0	124	74-176	1712	9.37	30	
Acetone	2723	150	1511	318.9	159	20-160	1553	54.7	30	R
Acrylonitrile	1449	150	1511	0	95.9	70-135	1362	6.22	30	
Benzene	1622	45	1511	0	107	75-125	1470	9.82	30	
Bromochloromethane	1494	45	1511	0	98.8	74-134	1414	5.47	30	
Bromodichloromethane	1316	45	1511	0	87.1	70-130	1133	15	30	
Bromoform	1138	45	1511	0	75.3	55-135	1005	12.5	30	
Bromomethane	1055	150	1511	0	69.8	50-170	866	19.7	30	B
Carbon disulfide	1360	45	1511	0	90	45-160	1181	14.1	30	
Carbon tetrachloride	1445	45	1511	0	95.6	65-135	1325	8.64	30	
Chlorobenzene	1535	45	1511	0	102	75-125	1408	8.69	30	
Chloroethane	1622	150	1511	0	107	40-155	1560	3.85	30	
Chloroform	1517	45	1511	0	100	66-140	1402	7.88	30	
Chloromethane	1642	150	1511	0	109	50-144	1477	10.6	30	
cis-1,2-Dichloroethene	1436	45	1511	0	95	65-125	1332	7.5	30	
cis-1,3-Dichloropropene	1295	45	1511	0	85.7	70-125	1157	11.3	30	
Dibromochloromethane	1124	45	1511	0	74.4	65-135	1007	11	30	
Dibromomethane	1578	45	1511	0	104	75-130	1429	9.88	30	
Dichlorodifluoromethane	1993	150	1511	0	132	35-135	1916	3.91	30	
Diethyl ether	1448	45	1511	0	95.8	67-150	1318	9.41	30	
Ethylbenzene	1575	45	1511	95.29	97.9	75-125	1431	9.63	30	
Hexachloroethane	1235	150	1511	0	81.7	51-122	1047	16.4	30	
Isopropylbenzene	1719	45	1511	356.7	90.1	75-130	1533	11.4	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **152067** Instrument ID **VMS6** Method: **SW8260C**

m,p-Xylene	3198	91	3023	1288	63.2	80-125	2921	9.06	30	S
Methyl tert-butyl ether	1585	45	1511	0	105	75-125	1510	4.85	30	
Methylene chloride	1628	380	1511	0	108	55-145	1533	5.96	30	
Naphthalene	1589	150	1511	0	105	40-140	1378	14.2	30	
n-Propylbenzene	2003	45	1511	1716	19	65-135	1637	20.1	30	S
o-Xylene	1619	45	1511	204	93.7	75-125	1458	10.5	30	
Styrene	1637	45	1511	0	108	80-138	1470	10.7	30	
Tetrachloroethene	2453	45	1511	0	162	67-167	1681	37.3	30	R
Toluene	1553	45	1511	422.1	74.8	70-125	1414	9.39	30	
trans-1,2-Dichloroethene	1511	45	1511	0	100	65-135	1434	5.21	30	
trans-1,3-Dichloropropene	1164	45	1511	0	77	59-129	1020	13.1	30	
trans-1,4-Dichloro-2-butene	983.8	45	1511	0	65.1	62-112	921.4	6.55	30	
Trichloroethene	1607	45	1511	0	106	75-125	1434	11.4	30	
Trichlorofluoromethane	1342	45	1511	0	88.8	25-185	1311	2.34	30	
Vinyl chloride	1517	45	1511	0	100	60-125	1458	4	30	
Xylenes, Total	4817	140	4534	1500	73.2	75-125	4378	9.54	30	S
Surr: 1,2-Dichloroethane-d4	*1595*	0	*1511*	0	*106*	*70-130*	1511	*5.42*	*30*	
Surr: 4-Bromofluorobenzene	*1533*	0	*1511*	0	*101*	*70-130*	1482	*3.36*	*30*	
Surr: Dibromofluoromethane	*1498*	0	*1511*	0	*99.2*	*70-130*	1475	*1.58*	*30*	
Surr: Toluene-d8	*1504*	0	*1511*	0	*99.5*	*70-130*	1479	*1.63*	*30*	

The following samples were analyzed in this batch: 20021006-79A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R282898A** Instrument ID **VMS8** Method: **SW8260C**

MBLK Sample ID: **VBLKW2-200218-R282898A** Units: **µg/L** Analysis Date: **2/18/2020 09:44 PM**

Client ID: Run ID: **VMS8_200218A** SeqNo: **6257427** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	1.0								
1,2-Dichloroethane	ND	1.0								
2-Butanone	ND	5.0								
Benzene	ND	1.0								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroform	ND	1.0								
Tetrachloroethene	ND	1.0								
Trichloroethene	ND	1.0								
Vinyl chloride	ND	1.0								
Surr: 1,2-Dichloroethane-d4	*20.12*	0	*20*	0	*101*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*18.81*	0	*20*	0	*94*	*80-110*	0			
Surr: Dibromofluoromethane	*20.37*	0	*20*	0	*102*	*85-115*	0			
Surr: Toluene-d8	*20.37*	0	*20*	0	*102*	*85-110*	0			

LCS Sample ID: **VLCSW1-200218-R282898A** Units: **µg/L** Analysis Date: **2/18/2020 08:55 PM**

Client ID: Run ID: **VMS8_200218A** SeqNo: **6257426** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	18.25	1.0	20	0	91.2	70-145	0			
1,2-Dichloroethane	18.36	1.0	20	0	91.8	78-125	0			
2-Butanone	20.51	5.0	20	0	103	55-150	0			
Benzene	18.82	1.0	20	0	94.1	70-130	0			
Carbon tetrachloride	16.13	1.0	20	0	80.6	65-140	0			
Chlorobenzene	19.76	1.0	20	0	98.8	80-120	0			
Chloroform	18.78	1.0	20	0	93.9	66-135	0			
Tetrachloroethene	18.55	1.0	20	0	92.8	68-166	0			
Trichloroethene	17.57	1.0	20	0	87.8	77-125	0			
Vinyl chloride	21.08	1.0	20	0	105	50-136	0			
Surr: 1,2-Dichloroethane-d4	*19.81*	0	*20*	0	*99*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.58*	0	*20*	0	*97.9*	*80-110*	0			
Surr: Dibromofluoromethane	*19.65*	0	*20*	0	*98.2*	*85-115*	0			
Surr: Toluene-d8	*20.47*	0	*20*	0	*102*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R282898A** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: **20021006-20A MS** Units: **µg/L** Analysis Date: **2/19/2020 03:40 AM**

Client ID: **S-13R 0-1' TCLP** Run ID: **VMS8_200218A** SeqNo: **6257429** Prep Date: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	394.8	20	400	0	98.7	70-145	0			
1,2-Dichloroethane	362	20	400	0	90.5	78-125	0			
2-Butanone	423.4	100	400	0	106	55-150	0			
Benzene	400.8	20	400	0	100	70-130	0			
Carbon tetrachloride	369.4	20	400	0	92.4	65-140	0			
Chlorobenzene	390.6	20	400	0	97.6	80-120	0			
Chloroform	366.8	20	400	0	91.7	66-135	0			
Tetrachloroethene	449.4	20	400	0	112	68-166	0			
Trichloroethene	388.4	20	400	0	97.1	77-125	0			
Vinyl chloride	474.2	20	400	0	119	50-136	0			
Surr: 1,2-Dichloroethane-d4	*409.8*	0	*400*	0	*102*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*382.8*	0	*400*	0	*95.7*	*80-110*	0			
Surr: Dibromofluoromethane	*414.4*	0	*400*	0	*104*	*85-115*	0			
Surr: Toluene-d8	*415.2*	0	*400*	0	*104*	*85-110*	0			

MSD Sample ID: **20021006-20A MSD** Units: **µg/L** Analysis Date: **2/19/2020 03:56 AM**

Client ID: **S-13R 0-1' TCLP** Run ID: **VMS8_200218A** SeqNo: **6257430** Prep Date: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	434	20	400	0	108	70-145	394.8	9.46	30	
1,2-Dichloroethane	385	20	400	0	96.2	78-125	362	6.16	30	
2-Butanone	452.4	100	400	0	113	55-150	423.4	6.62	30	
Benzene	426.2	20	400	0	107	70-130	400.8	6.14	30	
Carbon tetrachloride	400.8	20	400	0	100	65-140	369.4	8.15	30	
Chlorobenzene	425.6	20	400	0	106	80-120	390.6	8.58	30	
Chloroform	410.4	20	400	0	103	66-135	366.8	11.2	30	
Tetrachloroethene	461.8	20	400	0	115	68-166	449.4	2.72	30	
Trichloroethene	411	20	400	0	103	77-125	388.4	5.65	30	
Vinyl chloride	509.4	20	400	0	127	50-136	474.2	7.16	30	
Surr: 1,2-Dichloroethane-d4	*400.8*	0	*400*	0	*100*	*75-120*	409.8	*2.22*	*30*	
Surr: 4-Bromofluorobenzene	*385.4*	0	*400*	0	*96.4*	*80-110*	382.8	*0.677*	*30*	
Surr: Dibromofluoromethane	*403*	0	*400*	0	*101*	*85-115*	414.4	*2.79*	*30*	
Surr: Toluene-d8	*394.8*	0	*400*	0	*98.7*	*85-110*	415.2	*5.04*	*30*	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R282898A** Instrument ID **VMS8** Method: **SW8260C**

The following samples were analyzed in this batch:

20021006-01A	20021006-02A	20021006-03A
20021006-04A	20021006-05A	20021006-06A
20021006-07A	20021006-08A	20021006-09A
20021006-10A	20021006-11A	20021006-12A
20021006-13A	20021006-14A	20021006-15A
20021006-16A	20021006-17A	20021006-18A
20021006-19A	20021006-20A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R283053A** Instrument ID **VMS9** Method: **SW8260C**

MBLK Sample ID: **VBLKW3-200219-R283053A** Units: **µg/L** Analysis Date: **2/20/2020 07:54 PM**

Client ID: Run ID: **VMS9_200220B** SeqNo: **6263742** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	1.0								
1,2-Dichloroethane	ND	1.0								
2-Butanone	ND	5.0								
Benzene	ND	1.0								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroform	ND	1.0								
Tetrachloroethene	ND	1.0								
Trichloroethene	ND	1.0								
Vinyl chloride	ND	1.0								
Surr: 1,2-Dichloroethane-d4	*20.35*	0	*20*	0	*102*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.45*	0	*20*	0	*97.2*	*80-110*	0			
Surr: Dibromofluoromethane	*17.9*	0	*20*	0	*89.5*	*85-115*	0			
Surr: Toluene-d8	*19.67*	0	*20*	0	*98.4*	*85-110*	0			

LCS Sample ID: **VLCS2-200220-R283053A** Units: **µg/L** Analysis Date: **2/20/2020 06:51 PM**

Client ID: Run ID: **VMS9_200220B** SeqNo: **6263741** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	19.8	1.0	20	0	99	70-145	0			
1,2-Dichloroethane	21.11	1.0	20	0	106	78-125	0			
2-Butanone	24.68	5.0	20	0	123	55-150	0			
Benzene	20.96	1.0	20	0	105	70-130	0			
Carbon tetrachloride	16.9	1.0	20	0	84.5	65-140	0			
Chlorobenzene	20.69	1.0	20	0	103	80-120	0			
Chloroform	19.47	1.0	20	0	97.4	66-135	0			
Tetrachloroethene	21.97	1.0	20	0	110	68-166	0			
Trichloroethene	19.6	1.0	20	0	98	77-125	0			
Vinyl chloride	21.44	1.0	20	0	107	50-136	0			
Surr: 1,2-Dichloroethane-d4	*20.03*	0	*20*	0	*100*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*20.37*	0	*20*	0	*102*	*80-110*	0			
Surr: Dibromofluoromethane	*19.55*	0	*20*	0	*97.8*	*85-115*	0			
Surr: Toluene-d8	*20.21*	0	*20*	0	*101*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R283053A** Instrument ID **VMS9** Method: **SW8260C**

MS Sample ID: **20021144-08A MS** Units: **µg/L** Analysis Date: **2/21/2020 03:37 AM**

Client ID: Run ID: **VMS9_200220B** SeqNo: **6263744** Prep Date: **2/20/2020** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	407.2	20	400	0	102	70-145	0			
1,2-Dichloroethane	395	20	400	0	98.8	78-125	0			
2-Butanone	426.8	100	400	0	107	55-150	0			
Benzene	408.8	20	400	0	102	70-130	0			
Carbon tetrachloride	335.4	20	400	0	83.8	65-140	0			
Chlorobenzene	386.8	20	400	0	96.7	80-120	0			
Chloroform	365	20	400	0	91.2	66-135	0			
Tetrachloroethene	517.6	20	400	0	129	68-166	0			
Trichloroethene	381.6	20	400	0	95.4	77-125	0			
Vinyl chloride	446	20	400	0	112	50-136	0			
Surr: 1,2-Dichloroethane-d4	*392.8*	0	*400*	0	*98.2*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*400.8*	0	*400*	0	*100*	*80-110*	0			
Surr: Dibromofluoromethane	*392*	0	*400*	0	*98*	*85-115*	0			
Surr: Toluene-d8	*397.8*	0	*400*	0	*99.4*	*85-110*	0			

MSD Sample ID: **20021144-08A MSD** Units: **µg/L** Analysis Date: **2/21/2020 03:58 AM**

Client ID: Run ID: **VMS9_200220B** SeqNo: **6263745** Prep Date: **2/20/2020** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	414.8	20	400	0	104	70-145	407.2	1.85	30	
1,2-Dichloroethane	392.8	20	400	0	98.2	78-125	395	0.559	30	
2-Butanone	445.4	100	400	0	111	55-150	426.8	4.27	30	
Benzene	405.8	20	400	0	101	70-130	408.8	0.737	30	
Carbon tetrachloride	344.8	20	400	0	86.2	65-140	335.4	2.76	30	
Chlorobenzene	392.2	20	400	0	98	80-120	386.8	1.39	30	
Chloroform	371.8	20	400	0	93	66-135	365	1.85	30	
Tetrachloroethene	509	20	400	0	127	68-166	517.6	1.68	30	
Trichloroethene	377.4	20	400	0	94.4	77-125	381.6	1.11	30	
Vinyl chloride	453.2	20	400	0	113	50-136	446	1.6	30	
Surr: 1,2-Dichloroethane-d4	*402.8*	0	*400*	0	*101*	*75-120*	392.8	*2.51*	*30*	
Surr: 4-Bromofluorobenzene	*407.2*	0	*400*	0	*102*	*80-110*	400.8	*1.58*	*30*	
Surr: Dibromofluoromethane	*389.4*	0	*400*	0	*97.4*	*85-115*	392	*0.665*	*30*	
Surr: Toluene-d8	*399*	0	*400*	0	*99.8*	*85-110*	397.8	*0.301*	*30*	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R283053A** Instrument ID **VMS9** Method: **SW8260C**

The following samples were analyzed in this batch:

20021006-21A	20021006-22A	20021006-23A
20021006-24A	20021006-25A	20021006-26A
20021006-27A	20021006-28A	20021006-29A
20021006-30A	20021006-31A	20021006-32A
20021006-33A	20021006-34A	20021006-35A
20021006-36A	20021006-37A	20021006-38A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R283447A** Instrument ID **VMS8** Method: **SW8260C**

MBLK Sample ID: **VBLKW2-200226-R283447A** Units: **µg/L** Analysis Date: **2/26/2020 08:12 PM**

Client ID: Run ID: **VMS8_200226B** SeqNo: **6273811** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	1.0								
1,2-Dichloroethane	ND	1.0								
2-Butanone	ND	5.0								
Benzene	ND	1.0								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroform	ND	1.0								
Tetrachloroethene	ND	1.0								
Trichloroethene	ND	1.0								
Vinyl chloride	ND	1.0								
Surr: 1,2-Dichloroethane-d4	*21.39*	0	*20*	0	*107*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.61*	0	*20*	0	*98*	*80-110*	0			
Surr: Dibromofluoromethane	*19.65*	0	*20*	0	*98.2*	*85-115*	0			
Surr: Toluene-d8	*21.01*	0	*20*	0	*105*	*85-110*	0			

LCS Sample ID: **VLCSW2-200226-R283447A** Units: **µg/L** Analysis Date: **2/26/2020 07:24 PM**

Client ID: Run ID: **VMS8_200226B** SeqNo: **6273810** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	21.65	1.0	20	0	108	70-145	0			
1,2-Dichloroethane	19	1.0	20	0	95	78-125	0			
2-Butanone	22.09	5.0	20	0	110	55-150	0			
Benzene	20.6	1.0	20	0	103	70-130	0			
Carbon tetrachloride	17.07	1.0	20	0	85.4	65-140	0			
Chlorobenzene	20.67	1.0	20	0	103	80-120	0			
Chloroform	20.21	1.0	20	0	101	66-135	0			
Tetrachloroethene	19.1	1.0	20	0	95.5	68-166	0			
Trichloroethene	18.47	1.0	20	0	92.4	77-125	0			
Vinyl chloride	22.5	1.0	20	0	112	50-136	0			
Surr: 1,2-Dichloroethane-d4	*21.26*	0	*20*	0	*106*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*18.72*	0	*20*	0	*93.6*	*80-110*	0			
Surr: Dibromofluoromethane	*19.4*	0	*20*	0	*97*	*85-115*	0			
Surr: Toluene-d8	*20.63*	0	*20*	0	*103*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R283447A** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: **20021634-06A MS** Units: **µg/L** Analysis Date: **2/27/2020 01:04 AM**

Client ID: Run ID: **VMS8_200226B** SeqNo: **6273818** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	1038	50	1000	0	104	70-145	0			
1,2-Dichloroethane	877	50	1000	0	87.7	78-125	0			
2-Butanone	925	250	1000	0	92.5	55-150	0			
Benzene	1011	50	1000	29	98.2	70-130	0			
Carbon tetrachloride	831	50	1000	0	83.1	65-140	0			
Chlorobenzene	946.5	50	1000	0	94.6	80-120	0			
Chloroform	956.5	50	1000	0	95.6	66-135	0			
Tetrachloroethene	899	50	1000	0	89.9	68-166	0			
Trichloroethene	883	50	1000	0	88.3	77-125	0			
Vinyl chloride	1084	50	1000	0	108	50-136	0			
Surr: 1,2-Dichloroethane-d4	*1041*	0	*1000*	0	*104*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*1022*	0	*1000*	0	*102*	*80-110*	0			
Surr: Dibromofluoromethane	*973.5*	0	*1000*	0	*97.4*	*85-115*	0			
Surr: Toluene-d8	*1019*	0	*1000*	0	*102*	*85-110*	0			

MSD Sample ID: **20021634-06A MSD** Units: **µg/L** Analysis Date: **2/27/2020 01:20 AM**

Client ID: Run ID: **VMS8_200226B** SeqNo: **6273819** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	1090	50	1000	0	109	70-145	1038	4.79	30	
1,2-Dichloroethane	930	50	1000	0	93	78-125	877	5.87	30	
2-Butanone	1006	250	1000	0	101	55-150	925	8.44	30	
Benzene	1054	50	1000	29	102	70-130	1011	4.12	30	
Carbon tetrachloride	891	50	1000	0	89.1	65-140	831	6.97	30	
Chlorobenzene	1003	50	1000	0	100	80-120	946.5	5.8	30	
Chloroform	981	50	1000	0	98.1	66-135	956.5	2.53	30	
Tetrachloroethene	1016	50	1000	0	102	68-166	899	12.2	30	
Trichloroethene	914.5	50	1000	0	91.4	77-125	883	3.5	30	
Vinyl chloride	1168	50	1000	0	117	50-136	1084	7.51	30	
Surr: 1,2-Dichloroethane-d4	*1035*	0	*1000*	0	*104*	*75-120*	1041	*0.578*	*30*	
Surr: 4-Bromofluorobenzene	*1002*	0	*1000*	0	*100*	*80-110*	1022	*1.98*	*30*	
Surr: Dibromofluoromethane	*937*	0	*1000*	0	*93.7*	*85-115*	973.5	*3.82*	*30*	
Surr: Toluene-d8	*1050*	0	*1000*	0	*105*	*85-110*	1019	*3*	*30*	

The following samples were analyzed in this batch: 20021006-80A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151982** Instrument ID **WETCHEM** Method: **A5210B-11**

MBLK Sample ID: **MBLK-151982-151982** Units: **mg/Kg** Analysis Date: **2/20/2020 09:26 AM**
Client ID: Run ID: **WETCHEM_200220H** SeqNo: **6261418** Prep Date: **2/15/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Biochemical Oxygen Demand	0.7	20								

LCS Sample ID: **LCS-151982-151982** Units: **mg/Kg** Analysis Date: **2/20/2020 09:26 AM**
Client ID: Run ID: **WETCHEM_200220H** SeqNo: **6261419** Prep Date: **2/15/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Biochemical Oxygen Demand	2049	20	1980	0	104	85-115	0			

DUP Sample ID: **20021006-40B DUP** Units: **mg/Kg** Analysis Date: **2/20/2020 09:26 AM**
Client ID: **A6** Run ID: **WETCHEM_200220H** SeqNo: **6261421** Prep Date: **2/15/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Biochemical Oxygen Demand	307.9	20	0	0	0		178.9	53	20	R

DUP Sample ID: **20021006-50B DUP** Units: **mg/Kg** Analysis Date: **2/20/2020 09:26 AM**
Client ID: **S-6 8-9'** Run ID: **WETCHEM_200220H** SeqNo: **6261432** Prep Date: **2/15/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Biochemical Oxygen Demand	0.9926	20	0	0	0		16.09	0	20	

The following samples were analyzed in this batch:

20021006-40B	20021006-41B	20021006-42B
20021006-43B	20021006-44B	20021006-45B
20021006-46B	20021006-47B	20021006-48B
20021006-49B	20021006-50B	20021006-51B
20021006-52B	20021006-53B	20021006-54B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151984** Instrument ID **WETCHEM** Method: **A5210B-11**

MBLK Sample ID: **MBLK-151984-151984** Units: **mg/Kg** Analysis Date: **2/20/2020 12:00 PM**
Client ID: Run ID: **WETCHEM_200220J** SeqNo: **6261472** Prep Date: **2/15/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Biochemical Oxygen Demand	-1.7	20								

LCS Sample ID: **LCS-151984-151984** Units: **mg/Kg** Analysis Date: **2/20/2020 12:00 PM**
Client ID: Run ID: **WETCHEM_200220J** SeqNo: **6261473** Prep Date: **2/15/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Biochemical Oxygen Demand	1832	20	1980	0	92.5	85-115	0			

DUP Sample ID: **20021006-60B DUP** Units: **mg/Kg** Analysis Date: **2/20/2020 12:00 PM**
Client ID: **S-11R 9-10'** Run ID: **WETCHEM_200220J** SeqNo: **6261480** Prep Date: **2/15/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Biochemical Oxygen Demand	ND	20	0	0	0		3.203	0	20	

DUP Sample ID: **20021006-70B DUP** Units: **mg/Kg** Analysis Date: **2/20/2020 12:00 PM**
Client ID: **S-3 12-13'** Run ID: **WETCHEM_200220J** SeqNo: **6261491** Prep Date: **2/15/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Biochemical Oxygen Demand	20.55	20	0	0	0		20.2	1.74	20	

The following samples were analyzed in this batch:

20021006-55B	20021006-56B	20021006-57B
20021006-58B	20021006-59B	20021006-60B
20021006-61B	20021006-62B	20021006-63B
20021006-64B	20021006-65B	20021006-66B
20021006-67B	20021006-68B	20021006-69B
20021006-70B	20021006-71B	20021006-72B
20021006-73B	20021006-74B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151985** Instrument ID **WETCHEM** Method: **A5210B-11**

MBLK Sample ID: **MBLK-151985-151985** Units: **mg/Kg** Analysis Date: **2/20/2020 01:23 PM**

Client ID: Run ID: **WETCHEM_200220K** SeqNo: **6261518** Prep Date: **2/15/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Biochemical Oxygen Demand	-0.5	20								

LCS Sample ID: **LCS-151985-151985** Units: **mg/Kg** Analysis Date: **2/20/2020 01:23 PM**

Client ID: Run ID: **WETCHEM_200220K** SeqNo: **6261519** Prep Date: **2/15/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Biochemical Oxygen Demand	1955	20	1980	0	98.8	85-115	0			

DUP Sample ID: **20021006-75B DUP** Units: **mg/Kg** Analysis Date: **2/20/2020 01:23 PM**

Client ID: **S-4 10-11'** Run ID: **WETCHEM_200220K** SeqNo: **6261521** Prep Date: **2/15/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Biochemical Oxygen Demand	-0.2005	5.0	0	0	0		3.559	0	20	

The following samples were analyzed in this batch:

20021006-75B	20021006-76B	20021006-77B
20021006-78B	20021006-79B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152007** Instrument ID **WETCHEM** Method: **SW9045D**

LCS Sample ID: **LCS-152007-152007** Units: **s.u.** Analysis Date: **2/17/2020 12:00 PM**

Client ID: Run ID: **WETCHEM_200217G** SeqNo: **6252963** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	3.99	0.10	4	0	99.8	90-110	0			

DUP Sample ID: **20021006-57B DUP** Units: **s.u.** Analysis Date: **2/17/2020 12:00 PM**

Client ID: **S-11R 6-7'** Run ID: **WETCHEM_200217G** SeqNo: **6252972** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.45	0.10	0	0	0	0-0	8.34	1.31	20	

DUP Sample ID: **20021006-65B DUP** Units: **s.u.** Analysis Date: **2/17/2020 12:00 PM**

Client ID: **S-13R 4-5'** Run ID: **WETCHEM_200217G** SeqNo: **6252981** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.5	0.10	0	0	0	0-0	8.44	0.708	20	

The following samples were analyzed in this batch:

20021006-50B	20021006-51B	20021006-52B
20021006-53B	20021006-54B	20021006-55B
20021006-56B	20021006-57B	20021006-58B
20021006-59B	20021006-60B	20021006-61B
20021006-62B	20021006-63B	20021006-64B
20021006-65B	20021006-66B	20021006-67B
20021006-68B	20021006-69B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152013** Instrument ID **WETCHEM** Method: **SW9045D**

LCS Sample ID: **LCS-152013-152013** Units: **s.u.** Analysis Date: **2/18/2020 08:30 AM**
Client ID: Run ID: **WETCHEM_200218F** SeqNo: **6255036** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	3.96	0.10	4	0	99	90-110	0			

DUP Sample ID: **20021006-45B DUP** Units: **s.u.** Analysis Date: **2/18/2020 08:30 AM**
Client ID: **S-7 11-12'** Run ID: **WETCHEM_200218F** SeqNo: **6255043** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.2	0.10	0	0	0	0-0	8.19	0.122	20	

DUP Sample ID: **20021006-77B DUP** Units: **s.u.** Analysis Date: **2/18/2020 08:30 AM**
Client ID: **S-4 12-13'** Run ID: **WETCHEM_200218F** SeqNo: **6255056** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.26	0.10	0	0	0	0-0	8.2	0.729	20	

The following samples were analyzed in this batch:

20021006-40B	20021006-41B	20021006-42B
20021006-43B	20021006-44B	20021006-45B
20021006-46B	20021006-47B	20021006-48B
20021006-49B	20021006-70B	20021006-71B
20021006-72B	20021006-73B	20021006-74B
20021006-75B	20021006-76B	20021006-77B
20021006-78B	20021006-79B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152030** Instrument ID **LACHAT2** Method: **E365.1 R2.0**

MBLK Sample ID: **MBLK-152030-152030** Units: **mg/Kg** Analysis Date: **2/18/2020 10:57 AM**
Client ID: Run ID: **LACHAT2_200218A** SeqNo: **6255564** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	ND	5.0								

LCS Sample ID: **LCS-152030-152030** Units: **mg/Kg** Analysis Date: **2/18/2020 10:58 AM**
Client ID: Run ID: **LACHAT2_200218A** SeqNo: **6255565** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	9.925	5.0	10	0	99.2	90-110	0			

MS Sample ID: **20021006-73B MS** Units: **mg/Kg** Analysis Date: **2/18/2020 11:50 AM**
Client ID: **S-4 2-3'** Run ID: **LACHAT2_200218A** SeqNo: **6255611** Prep Date: **2/17/2020** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	439	100	51.02	370.4	134	90-110	0			SEO

MS Sample ID: **20020918-01A MS** Units: **mg/Kg** Analysis Date: **2/18/2020 12:05 PM**
Client ID: Run ID: **LACHAT2_200218A** SeqNo: **6255624** Prep Date: **2/17/2020** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	1365	480	48.08	832.8	1110	90-110	0			SO

MSD Sample ID: **20021006-73B MSD** Units: **mg/Kg** Analysis Date: **2/18/2020 11:51 AM**
Client ID: **S-4 2-3'** Run ID: **LACHAT2_200218A** SeqNo: **6255612** Prep Date: **2/17/2020** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	433.9	100	51.02	370.4	124	90-110	439	1.17	20	SEO

MSD Sample ID: **20020918-01A MSD** Units: **mg/Kg** Analysis Date: **2/18/2020 12:06 PM**
Client ID: Run ID: **LACHAT2_200218A** SeqNo: **6255625** Prep Date: **2/17/2020** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	1320	480	48.08	832.8	1010	90-110	1365	3.37	20	SO

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152030** Instrument ID **LACHAT2** Method: **E365.1 R2.0**

The following samples were analyzed in this batch:

20021006-42B	20021006-43B	20021006-44B
20021006-45B	20021006-46B	20021006-63B
20021006-64B	20021006-65B	20021006-66B
20021006-67B	20021006-68B	20021006-69B
20021006-70B	20021006-71B	20021006-72B
20021006-73B	20021006-74B	20021006-75B
20021006-76B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152059** Instrument ID **LACHAT2** Method: **E365.1 R2.0**

MBLK Sample ID: **MBLK-152059-152059** Units: **mg/Kg** Analysis Date: **2/18/2020 10:29 AM**
Client ID: Run ID: **LACHAT2_200218A** SeqNo: **6255539** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	ND	5.0								

LCS Sample ID: **LCS-152059-152059** Units: **mg/Kg** Analysis Date: **2/18/2020 10:30 AM**
Client ID: Run ID: **LACHAT2_200218A** SeqNo: **6255540** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	9.985	5.0	10	0	99.8	90-110	0			

MS Sample ID: **20021006-55B MS** Units: **mg/Kg** Analysis Date: **2/18/2020 10:53 AM**
Client ID: **S-6 16-17'** Run ID: **LACHAT2_200218A** SeqNo: **6255560** Prep Date: **2/17/2020** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	371.4	140	55.56	327.5	79	90-110	0			SO

MSD Sample ID: **20021006-55B MSD** Units: **mg/Kg** Analysis Date: **2/18/2020 10:56 AM**
Client ID: **S-6 16-17'** Run ID: **LACHAT2_200218A** SeqNo: **6255563** Prep Date: **2/17/2020** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	391.2	140	54.95	327.5	116	90-110	371.4	5.2	20	SO

The following samples were analyzed in this batch:

20021006-47B	20021006-48B	20021006-49B
20021006-50B	20021006-51B	20021006-52B
20021006-54B	20021006-55B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152136** Instrument ID **LACHAT2** Method: **E365.1 R2.0**

MBLK Sample ID: **MBLK-152136-152136** Units: **mg/Kg** Analysis Date: **2/19/2020 10:22 AM**
Client ID: Run ID: **LACHAT2_200219A** SeqNo: **6257559** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	ND	5.0								

LCS Sample ID: **LCS-152136-152136** Units: **mg/Kg** Analysis Date: **2/19/2020 10:23 AM**
Client ID: Run ID: **LACHAT2_200219A** SeqNo: **6257560** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	10.72	5.0	10	0	107	90-110	0			

MS Sample ID: **20021006-41B MS** Units: **mg/Kg** Analysis Date: **2/19/2020 10:26 AM**
Client ID: **A7** Run ID: **LACHAT2_200219A** SeqNo: **6257563** Prep Date: **2/18/2020** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	439	100	52.08	356.4	158	90-110	0			SEO

MS Sample ID: **20021006-56B MS** Units: **mg/Kg** Analysis Date: **2/19/2020 10:36 AM**
Client ID: **S-11R 5-6'** Run ID: **LACHAT2_200219A** SeqNo: **6257572** Prep Date: **2/18/2020** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	372.4	98	49.02	276.6	195	90-110	0			SO

MSD Sample ID: **20021006-41B MSD** Units: **mg/Kg** Analysis Date: **2/19/2020 10:27 AM**
Client ID: **A7** Run ID: **LACHAT2_200219A** SeqNo: **6257564** Prep Date: **2/18/2020** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	413	100	51.55	356.4	110	90-110	439	6.1	20	EO

MSD Sample ID: **20021006-56B MSD** Units: **mg/Kg** Analysis Date: **2/19/2020 10:37 AM**
Client ID: **S-11R 5-6'** Run ID: **LACHAT2_200219A** SeqNo: **6257573** Prep Date: **2/18/2020** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	348.8	95	47.62	276.6	152	90-110	372.4	6.54	20	SO

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152136** Instrument ID **LACHAT2** Method: **E365.1 R2.0**

The following samples were analyzed in this batch:

20021006-40B	20021006-41B	20021006-53B
20021006-56B	20021006-57B	20021006-58B
20021006-59B	20021006-60B	20021006-61B
20021006-62B	20021006-77B	20021006-78B
20021006-79B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R282826** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R282826** Units: **% of sample** Analysis Date: **2/17/2020 02:45 PM**

Client ID: Run ID: **MOIST_200217C** SeqNo: **6255102** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.10								

LCS Sample ID: **LCS-R282826** Units: **% of sample** Analysis Date: **2/17/2020 02:45 PM**

Client ID: Run ID: **MOIST_200217C** SeqNo: **6255101** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.10	100	0	100	98-102	0			

DUP Sample ID: **20020997-01A DUP** Units: **% of sample** Analysis Date: **2/17/2020 02:45 PM**

Client ID: Run ID: **MOIST_200217C** SeqNo: **6255091** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	8.69	0.10	0	0	0	0-0	8.76	0.802	10	

DUP Sample ID: **20020997-02A DUP** Units: **% of sample** Analysis Date: **2/17/2020 02:45 PM**

Client ID: Run ID: **MOIST_200217C** SeqNo: **6255093** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	9.12	0.10	0	0	0	0-0	9.18	0.656	10	

The following samples were analyzed in this batch:

20021006-40B	20021006-41B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R282905** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R282905** Units: **% of sample** Analysis Date: **2/18/2020 01:03 PM**
Client ID: Run ID: **MOIST_200218B** SeqNo: **6257521** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.10								

LCS Sample ID: **LCS-R282905** Units: **% of sample** Analysis Date: **2/18/2020 01:03 PM**
Client ID: Run ID: **MOIST_200218B** SeqNo: **6257520** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.10	100	0	100	98-102	0			

DUP Sample ID: **20021006-47B DUP** Units: **% of sample** Analysis Date: **2/18/2020 01:03 PM**
Client ID: **S-7 13-14'** Run ID: **MOIST_200218B** SeqNo: **6257504** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	17.49	0.10	0	0	0	0-0	17.43	0.344	10	

DUP Sample ID: **20021006-52B DUP** Units: **% of sample** Analysis Date: **2/18/2020 01:03 PM**
Client ID: **S-6 13-14'** Run ID: **MOIST_200218B** SeqNo: **6257510** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	17.38	0.10	0	0	0	0-0	17.81	2.44	10	

The following samples were analyzed in this batch:

20021006-42B	20021006-43B	20021006-44B
20021006-45B	20021006-46B	20021006-47B
20021006-48B	20021006-49B	20021006-50B
20021006-51B	20021006-52B	20021006-53B
20021006-54B	20021006-55B	20021006-56B
20021006-57B	20021006-58B	20021006-59B
20021006-60B	20021006-61B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021006
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R282906** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R282906** Units: **% of sample** Analysis Date: **2/18/2020 01:48 PM**

Client ID: Run ID: **MOIST_200218C** SeqNo: **6257547** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.10								

LCS Sample ID: **LCS-R282906** Units: **% of sample** Analysis Date: **2/18/2020 01:48 PM**

Client ID: Run ID: **MOIST_200218C** SeqNo: **6257545** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.10	100	0	100	98-102	0			

DUP Sample ID: **20021006-62B DUP** Units: **% of sample** Analysis Date: **2/18/2020 01:48 PM**

Client ID: **S-13R 1-2'** Run ID: **MOIST_200218C** SeqNo: **6257524** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	24.26	0.10	0	0	0	0-0	24.63	1.51	10	

DUP Sample ID: **20021006-72B DUP** Units: **% of sample** Analysis Date: **2/18/2020 01:48 PM**

Client ID: **S-3 14-15'** Run ID: **MOIST_200218C** SeqNo: **6257535** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	24.58	0.10	0	0	0	0-0	24.29	1.19	10	

The following samples were analyzed in this batch:

20021006-62B	20021006-63B	20021006-64B
20021006-65B	20021006-66B	20021006-67B
20021006-68B	20021006-69B	20021006-70B
20021006-71B	20021006-72B	20021006-73B
20021006-74B	20021006-75B	20021006-76B
20021006-77B	20021006-78B	20021006-79B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Chain of Custody Form

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☑ ALS Environmental
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Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

ALS Project Manager: KC | ALS Work Order #: 2002 1006

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name		A	VOCs
Work Order		Project Number	01-5303-3-0001	B	PNAS
Company Name	PM Environmental	Bill To Company	PM Environmental	C	PCBs
Send Report To	Adam Patton	Invoice Attn.	Adam Patton / Accounts Payable	D	MI-10 Metals
Address	4000 W. 11 Mile	Address	Same	E	Nickel, Thorium, Uranium
				F	pH, total phosphorus, BOD
City/State/Zip	Berkley/MI/48072	City/State/Zip	Same	G	TCLP (VOCs, SVOCs, RCRA8) extract and Hold
Phone	517-325-9867	Phone	Same	H	
Fax	—	Fax		I	
e-Mail Address	Pattonc@pmenv.com			J	

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	S-7 0-5'	2/13/20	10:45	S	4	4	✓	✓	✓	✓	✓	✓	✓				
2	S-7 5-10'	↓	10:50	S	4	4	✓	✓	✓	✓	✓	✓	✓				
3	S-7 10-11'		11:15	S	4	4	✓	✓	✓	✓	✓	✓	✓				
4	S-7 11-12'		11:20	S	4	4	✓	✓	✓	✓	✓	✓	✓				
5	S-7 12-13'		11:25	S	4	4	✓	✓	✓	✓	✓	✓	✓				
6	S-7 13-14'		11:30	S	4	4	✓	✓	✓	✓	✓	✓	✓				
7	S-7 14-15'		11:35	S	4	4	✓	✓	✓	✓	✓	✓	✓				
8	S-6 0-5'		12:35	S	4	4	✓	✓	✓	✓	✓	✓	✓				
9	S-6 12-17'		12:50	S	4	4	✓	✓	✓	✓	✓	✓	✓				
10	S-6 17-18'	↓	12:55	S	4	4	✓	✓	✓	✓	✓	✓	✓				

Sampler(s): Please Print & Sign: Jana Beumel Jane Beumel

Shipment Method:

Turnaround Time: (Business Days) ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☐ Other _____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
Jana Beumel PM Storage	2/13/20	19:00	QS			2/14/20 1430
Relinquished by: QS	Date: 2/14/20	Time: 1430	Received by (Laboratory): Fedex Express	Date: 2-14-20	Time: 0946	
Logged by (Laboratory): KEW	Date: 2/14/20	Time: 1500	Checked by (Laboratory): KC			

ALS Cooler ID	Cooler Temp	QC Package: (Check Box Below)	
		☐ Level II: Standard QC	☐ Level III: Raw Data
3.4°C	3.4°C	☐ TRRP LRC	☐ TRRP Level IV
2.8°C	2.4°C	☐ Level IV: SW846 Methods/CLP like	
	3.2°C	☐ Other: _____	

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C

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3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

ALS Project Manager: KL

ALS Work Order #: 20021006

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name		A	VOCs
Work Order		Project Number	01-5303-3-0001	B	PNAS
Company Name	PM Environmental	Bill To Company	PM Environmental	C	PCBs
Send Report To	Adam Patton	Invoice Attn.	Adam Patton / Accounts Payable	D	MI-10 Metals
Address	4000 W. 11 Mile	Address	Same	E	Nickel, Thorium, Uranium
				F	pH, total phosphorus, BOD
City/State/Zip	Berkley/MI/48072	City/State/Zip	Same	G	TCLP (VOCs, SVOCs, RCRA8) extract and Hold
Phone	517-325-9867	Phone	Same	H	
Fax	—	Fax		I	
e-Mail Address	Patton@pmenv.com			J	

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
	~~S-6 17-18~~	~~2/13/20~~					✓	✓	✓	✓	✓	✓	✓				
11	S-6 18-19	2/13/20	13:00	S	4	4	✓	✓	✓	✓	✓	✓	✓				
12	S-6 19-20		13:05	S	4	4	✓	✓	✓	✓	✓	✓	✓				
13	S-6 20-21		13:10	S	4	4	✓	✓	✓	✓	✓	✓	✓				
14	S-6 21-22		13:15	S	4	4	✓	✓	✓	✓	✓	✓	✓				
15	S-11R ~~6-7~~ 5-6		13:20	S	4	4	✓	✓	✓	✓	✓	✓	✓				
16	S-11R ~~7-8~~ 6-7		13:35	S	4	4	✓	✓	✓	✓	✓	✓	✓				
17	S-11R ~~8-9~~ 7-8		13:40	S	4	4	✓	✓	✓	✓	✓	✓	✓				
18	S-11R ~~9-10~~ 8-9		13:45	S	4	4	✓	✓	✓	✓	✓	✓	✓				
19	S-11R ~~10-11~~ 9-10		13:50	S	4	4	✓	✓	✓	✓	✓	✓	✓				

Sampler(s): Please Print & Sign: Jana Beumel *Jana Beumel*

Shipment Method:

Turnaround Time: (Business Days) ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☐ Other _____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
Jana Beumel / PM Storage	2/13/20	19:00				
Relinquished by: OS	2/14/20	1430	Received by (Laboratory):	Date:	Time:	
Logged by (Laboratory): KR	2/14/20	1500	Checked by (Laboratory):			

ALS Cooler ID	Cooler Temp	QC Package: (Check Box Below)	
		☐ Level II: Standard QC	☐ Level III: Raw Data
		☐ TRRP LRC	☐ TRRP Level IV
		☐ Level IV: SW846 Methods/CLP like	
		☐ Other: _____	

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C

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ALS Project Manager: AC

ALS Work Order #: 200210006

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name		A	VOCs
Work Order		Project Number	01-5303-3-0001	B	PNAS
Company Name	PM Environmental	Bill To Company	PM Environmental	C	PCBs
Send Report To	Adam Patton	Invoice Attn.	Adam Patton / Accounts Payable	D	MI-10 Metals
Address	4000 W. 11 Mile	Address	Same	E	Nickel, Thorium, Uranium
				F	pH, total phosphorus, BOD
City/State/Zip	Berkley/MI/48072	City/State/Zip	Same	G	TCLP (VOCs, SVOCs, RCRA8) extract and Hold
Phone	517-325-9867	Phone	Same	H	
Fax	—	Fax		I	
e-Mail Address	Pattonc@pmenv.com			J	

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
20	S-13R 0-1	2/13/20	14:00	S	4	4	✓	✓	✓	✓	✓	✓	✓				
21	S-13R 1-2		14:05	S	4	4	✓	✓	✓	✓	✓	✓	✓				
22	S-13R 2-3		14:10	S	4	4	✓	✓	✓	✓	✓	✓	✓				
23	S-13R 3-4		14:15	S	4	5	✓	✓	✓	✓	✓	✓	✓				
24	S-13R 4-5		14:20	S	4	5	✓	✓	✓	✓	✓	✓	✓				
25	S-3 0-5		16:00	S	4	4	✓	✓	✓	✓	✓	✓	✓				
26	S-3 5-10		16:05	S	4	4	✓	✓	✓	✓	✓	✓	✓				
27	S-3 10-11		16:10	S	4	4	✓	✓	✓	✓	✓	✓	✓				
28	S-3 11-12		16:15	S	4	4	✓	✓	✓	✓	✓	✓	✓				
29	S-3 12-13		16:20	S	4	4	✓	✓	✓	✓	✓	✓	✓				

Sampler(s): Please Print & Sign: Jana Beumel Jana Beumel

Shipment Method:

Turnaround Time: (Business Days) ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☐ Other _____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
Jana Beumel / PM Storage	2/13/20	17:00	QS			
QS	2/14/20	1430	[signature]			
Logged by (Laboratory): Ke	2/14/20	1500	Checked by (Laboratory): AC			

ALS Cooler ID	Cooler Temp	QC Package: (Check Box Below)	
		☐ Level II: Standard QC	☐ Level III: Raw Data
		☐ TRRP LRC	☐ TRRP Level IV
		☐ Level IV: SW846 Methods/CLP like	
		☐ Other: _____	

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C

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ALS Project Manager: AC | ALS Work Order #: 20021006

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name		A	VOCs
Work Order		Project Number	01-5303-3-0001	B	PNAS
Company Name	PM Environmental	Bill To Company	PM Environmental	C	PCBs
Send Report To	Adam Patton	Invoice Attn.	Adam Patton / Accounts Payable	D	MI-10 Metals
Address	4000 W. 11 Mile	Address	Same	E	Nickel, Thorium, Uranium
				F	pH, total phosphorus, BOD
City/State/Zip	Berkley/MI/48072	City/State/Zip	Same	G	TCLP (VOCs, SVOCs, RCRA8) extract and Hold
Phone	517-325-9869	Phone	Same	H	
Fax	—	Fax		I	
e-Mail Address	Pattonc@pmenv.com			J	

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
30	S-3 13-14	2/13/20	16:25	S	4	4	✓	✓	✓	✓	✓	✓	✓				
31	S-3 14-15		16:30	S	4	4	✓	✓	✓	✓	✓	✓	✓				
32	S-4 0-5		15:10	S	4	4	✓	✓	✓	✓	✓	✓	✓				
33	S-4 5-10		15:15	S	4	4	✓	✓	✓	✓	✓	✓	✓				
34	S-4 10-11		15:20	S	4	4	✓	✓	✓	✓	✓	✓	✓				
35	S-4 11-12		15:25	S	4	4	✓	✓	✓	✓	✓	✓	✓				
36	S-4 12-13		15:30	S	4	4	✓	✓	✓	✓	✓	✓	✓				
37	S-4 13-14		15:35	S	4	4	✓	✓	✓	✓	✓	✓	✓				
38	S-4 14-15		15:40	S	4	4	✓	✓	✓	✓	✓	✓	✓				
39	Trip Blank #3	2/13/20	8:45	L	4	1	✓	✓	✓	✓	✓	✓	✓				

VOCs only

Sampler(s): Please Print & Sign: Jana Beumel Jane Beumel

Shipment Method:

Turnaround Time: (Business Days) ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☐ Other _____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
Jana Beumel / PM Storage			QS			
QS	2/14/20	1430				
Logged by (Laboratory):	**Date:**	**Time:**	**Checked by (Laboratory):**			
KLJ	2/14/20	1500	AC			

ALS Cooler ID	Cooler Temp	QC Package: (Check Box Below)	
		☐ Level II: Standard QC	☐ Level III: Raw Data
		☐ TRRP LRC	☐ TRRP Level IV
		☐ Level IV: SW846 Methods/CLP like	
		☐ Other: _____	

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C

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Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

ALS Project Manager: AV | ALS Work Order #: 20021006

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name		A	VOCs
Work Order		Project Number	01-5303-3-0001	B	PNAs
Company Name	PM Environmental	Bill To Company	PM Environmental	C	PCBs
Send Report To	Adam Patton	Invoice Attn.	Adam Patton/Accounts Payable	D	MI-10 Metals
Address	4000 W. 11 Mile	Address	Same	E	Nickel, Thorium, Uranium
				F	pH, total phosphorus, BOD
City/State/Zip	Berkley/MI/48072	City/State/Zip	Same	G	F
Phone	517-325-9867	Phone	Same	H	
Fax	—	Fax	—	I	
e-Mail Address	Patton@pmenv.com			J	

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
40	A6	2/13/20	PM	S	4	4	✓	✓	✓	✓	✓	✓					
41	AT	2/13/20	PM	S	4	4	✓	✓	✓	✓	✓	✓					

2/13/20 SH

Sampler(s): Please Print & Sign: Jana Bennel Jane Bennel

Shipment Method:

Turnaround Time: (Business Days) ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☐ Other _____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
			QS			
Relinquished by: QS	Date: 2/14/20	Time: 1430	Received by (Laboratory):	Date:	Time:	
Logged by (Laboratory): Ke	Date: 2/14/20	Time: 1500	Checked by (Laboratory): AV			

ALS Cooler ID	Cooler Temp	QC Package: (Check Box Below)	
		☐ Level II: Standard QC	☐ Level III: Raw Data
		☐ TRRP LRC	☐ TRRP Level IV
		☐ Level IV: SW846 Methods/CLP like	
		☐ Other: _____	

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C

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Sample Receipt Checklist

Client Name: **PMENV-BERKLEY** Date/Time Received: **14-Feb-20 14:30**

Work Order: **20021006** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 14-Feb-20 (Date) Reviewed by: Alex J. Csaszar (eSignature) 14-Feb-20 (Date)

Matrices: Soil
Carrier name: Courier

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.4, 2.8, 3.4, 2.4, 3.2 C	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	2/14/2020 3:08:39 PM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

03-Mar-2020

Adam Patton
PM Environmental
4080 West 11 Mile Road
Berkley, MI 48072

Re: **Sediment Project 01-5303-3-0001** Work Order: **20021144**

Dear Adam,

ALS Environmental received 48 samples on 18-Feb-2020 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 155.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

Electronically approved by: Alex J. Csaszar

Alex J. Csaszar
Project Manager

ALS Group, USA

Date: 03-Mar-20

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: **20021144**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
20021144-01	WC-1 TCLP	Tclp Extract		2/17/2020 16:30	2/18/2020 09:45	☐
20021144-02	WC-2 TCLP	Tclp Extract		2/17/2020 16:30	2/18/2020 09:45	☐
20021144-03	S-8R 0-1 TCLP	Tclp Extract		2/17/2020 11:55	2/18/2020 09:45	☐
20021144-04	S-8R 1-2 TCLP	Tclp Extract		2/17/2020 12:00	2/18/2020 09:45	☐
20021144-05	S-8R 2-3 TCLP	Tclp Extract		2/17/2020 12:05	2/18/2020 09:45	☐
20021144-06	S-8R 3-4 TCLP	Tclp Extract		2/17/2020 12:10	2/18/2020 09:45	☐
20021144-07	S-8R 4-5 TCLP	Tclp Extract		2/17/2020 12:15	2/18/2020 09:45	☐
20021144-08	S-9R 0-1 TCLP	Tclp Extract		2/17/2020 12:50	2/18/2020 09:45	☐
20021144-09	S-9R 1-2 TCLP	Tclp Extract		2/17/2020 12:55	2/18/2020 09:45	☐
20021144-10	S-9R 2-3 TCLP	Tclp Extract		2/17/2020 13:00	2/18/2020 09:45	☐
20021144-11	S-9R 3-4 TCLP	Tclp Extract		2/17/2020 13:05	2/18/2020 09:45	☐
20021144-12	S-9R 4-5 TCLP	Tclp Extract		2/17/2020 13:10	2/18/2020 09:45	☐
20021144-13	S-10R 0-1 TCLP	Tclp Extract		2/17/2020 14:25	2/18/2020 09:45	☐
20021144-14	S-10R 1-2 TCLP	Tclp Extract		2/17/2020 14:30	2/18/2020 09:45	☐
20021144-15	S-10R 2-3 TCLP	Tclp Extract		2/17/2020 14:35	2/18/2020 09:45	☐
20021144-16	S-10R 3-4 TCLP	Tclp Extract		2/17/2020 14:40	2/18/2020 09:45	☐
20021144-17	S-10R 4-5 TCLP	Tclp Extract		2/17/2020 14:45	2/18/2020 09:45	☐
20021144-18	S-12R 0-1 TCLP	Tclp Extract		2/17/2020 15:15	2/18/2020 09:45	☐
20021144-19	S-12R 1-2 TCLP	Tclp Extract		2/17/2020 16:20	2/18/2020 09:45	☐
20021144-20	S-12R 2-3 TCLP	Tclp Extract		2/17/2020 15:25	2/18/2020 09:45	☐
20021144-21	S-12R 3-4 TCLP	Tclp Extract		2/17/2020 15:30	2/18/2020 09:45	☐
20021144-22	S-12R 4-5 TCLP	Tclp Extract		2/17/2020 15:35	2/18/2020 09:45	☐
20021144-23	A-8 TCLP	Tclp Extract		2/17/2020	2/18/2020 09:45	☐
20021144-24	A-9 TCLP	Tclp Extract		2/17/2020	2/18/2020 09:45	☐
20021144-25	WC-1	Liquid		2/17/2020 16:30	2/18/2020 09:45	☐
20021144-26	WC-2	Soil		2/17/2020 16:30	2/18/2020 09:45	☐
20021144-27	S-8R 0-01	Soil		2/17/2020 11:55	2/18/2020 09:45	☐
20021144-28	S-8R 1-2	Soil		2/17/2020 12:00	2/18/2020 09:45	☐
20021144-29	S-8R 2-3	Soil		2/17/2020 12:05	2/18/2020 09:45	☐
20021144-30	S-8R 3-4	Soil		2/17/2020 12:10	2/18/2020 09:45	☐
20021144-31	S-8R 4-5	Soil		2/17/2020 12:15	2/18/2020 09:45	☐
20021144-32	S-9R 0-1	Soil		2/17/2020 12:50	2/18/2020 09:45	☐
20021144-33	S-9R 1-2	Soil		2/17/2020 12:55	2/18/2020 09:45	☐
20021144-34	S-9R 2-3	Soil		2/17/2020 13:00	2/18/2020 09:45	☐
20021144-35	S-9R 3-4	Soil		2/17/2020 13:05	2/18/2020 09:45	☐
20021144-36	S-9R 4-5	Soil		2/17/2020 13:10	2/18/2020 09:45	☐
20021144-37	S-10R 0-1	Soil		2/17/2020 14:25	2/18/2020 09:45	☐
20021144-38	S-10R 1-2	Soil		2/17/2020 14:30	2/18/2020 09:45	☐
20021144-39	S-10R 2-3	Soil		2/17/2020 14:35	2/18/2020 09:45	☐

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: **20021144**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
20021144-40	S-10R 3-4	Soil		2/17/2020 14:40	2/18/2020 09:45	☐
20021144-41	S-10R 4-5	Soil		2/17/2020 14:45	2/18/2020 09:45	☐
20021144-42	S-12R 0-1	Soil		2/17/2020 15:15	2/18/2020 09:45	☐
20021144-43	S-12R 1-2	Soil		2/17/2020 16:20	2/18/2020 09:45	☐
20021144-44	S-12R 2-3	Soil		2/17/2020 15:25	2/18/2020 09:45	☐
20021144-45	S-12R 3-4	Soil		2/17/2020 15:30	2/18/2020 09:45	☐
20021144-46	S-12R 4-5	Soil		2/17/2020 15:35	2/18/2020 09:45	☐
20021144-47	A-8	Soil		2/17/2020	2/18/2020 09:45	☐
20021144-48	A-9	Soil		2/17/2020	2/18/2020 09:45	☐

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021144

Case Narrative

Samples for the above noted Work Order were received on 02/18/2020. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting. A copy of the laboratory's scope of accreditation is available upon request.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:

Batch 152112, Method VOC_8260_S, Sample LCS-152112: The LCS recoveries were above the upper control limits for Dichlorodifluoromethane and Methyl tert-butyl ether. All the sample results in the batch were non-detect. No qualification is necessary for these analytes.

Batch 152112, Method VOC_8260_S, Samples 20021144-30A MS and MSD: The MS and MSD recoveries were below the lower control limits for Bromomethane. The reported results in the parent sample may be biased low for this analyte.

Batch 152112, Method VOC_8260_S, Samples 20021144-30A MS: The matrix spike recovery was outside of the control limits for Trans-1,4-Dichloro-2-butene. However, the matrix spike duplicate recovery and the RPD between the MS and MSD were in control. No qualification is required for this analyte.

Batch 152112, Method VOC_8260_S, Samples 20021144-30A MS and MSD: The MS and MSD recoveries were above the upper control limits for serveral analytes (See QC Report). The reported results in the parent sample were non-detect, therefore no qualification is necessary.

Extractable Organics:

Batch 152167, Method PCBLVI_8082_S, Sample 20021144-28B: One or more surrogate recoveries were below the lower control limits. The sample results may be biased low. Matrix

interference

Batch 152249, Method PCBLVI_8082_S, Samples 20021144-41B, -43B and -46B: One or more surrogate recoveries were below the lower control limits. The sample results may be biased low. Matrix interference

Metals:

Batch 152240, Method ICP_6020_S, Samples 20021144-48B MS and MSD: The MS and MSD recoveries were above the upper control limits for Chromium. The reported result in the parent sample may be biased high for this analyte.

Batch 152240, Method ICP_6020_S, Samples 20021144-48B MS and MSD: The MS and MSD recoveries were outside of the control limits for Barium and Zinc; however, the results in the parent sample were greater than 4x the spike amount. No qualification is required for these analytes.

Batch 152240, Method ICP_6020_S, Sample 20021144-48B MSD: The MSD recovery was outside of the control limits for Copper. However, the MS recovery and the RPD between the MS and MSD was in control. No qualification is required for this analyte.

Wet Chemistry:

Batch 152197, Method PASC_365.1_S, Samples 20021144-27B MS and MSD: The MS and SMD recoveries were outside of the control limits for Phosphorus; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte.

Batch 152197, Method PASC_365.1_S, Samples 20021144-38B MS and MSD: The MS and MSD recoveries were outside of the control limits for Phosphorus; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte.

Batch 152302, Method PASC_365.1_S, Samples 20021144-41B MS and MSD: The MS and MSD recoveries were outside of the control limits for Phosphorus; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte.

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
% of sample	Percent of Sample
°C	Degrees Celcius
µg/Kg-dry	Micrograms per Kilogram Dry Weight
µg/L	Micrograms per Liter
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
s.u.	Standard Units

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021144
Sample ID: S-9R 0-1 TCLP
Lab ID: 20021144-08
Collection Date: 2/17/2020 12:50 PM
Matrix: TCLP EXTRACT

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP METALS ANALYSIS BY ICP-MS			**SW6020B**		Prep: SW3015A 2/27/20 14:52	Analyst: **STP**
Arsenic	ND		0.050	mg/L	1	2/27/2020 10:01 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021144
Sample ID: S-9R 3-4 TCLP
Lab ID: 20021144-11
Collection Date: 2/17/2020 01:05 PM
Matrix: TCLP EXTRACT

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP METALS ANALYSIS BY ICP-MS			**SW6020B**		Prep: SW3015A 2/27/20 14:52	Analyst: **STP**
Lead	ND		0.050	mg/L	1	2/27/2020 10:03 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021144
Sample ID: WC-1
Lab ID: 20021144-25
Collection Date: 2/17/2020 04:30 PM
Matrix: LIQUID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3511 2/21/20 14:45	Analyst: **RM**
Aroclor 1016	ND		0.20	µg/L	1	2/24/2020 10:50 AM
Aroclor 1221	ND		0.20	µg/L	1	2/24/2020 10:50 AM
Aroclor 1232	ND		0.20	µg/L	1	2/24/2020 10:50 AM
Aroclor 1242	ND		0.20	µg/L	1	2/24/2020 10:50 AM
Aroclor 1248	ND		0.20	µg/L	1	2/24/2020 10:50 AM
Aroclor 1254	ND		0.20	µg/L	1	2/24/2020 10:50 AM
Aroclor 1260	ND		0.20	µg/L	1	2/24/2020 10:50 AM
Aroclor 1262	ND		0.20	µg/L	1	2/24/2020 10:50 AM
Aroclor 1268	ND		0.20	µg/L	1	2/24/2020 10:50 AM
Surr: Decachlorobiphenyl	*82.6*		*30-150*	*%REC*	1	2/24/2020 10:50 AM
Surr: Tetrachloro-m-xylene	*93.9*		*50-150*	*%REC*	1	2/24/2020 10:50 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021144
Sample ID: WC-2
Lab ID: 20021144-26
Collection Date: 2/17/2020 04:30 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/19/20 13:05		Analyst: **RM**
Aroclor 1016	ND		170	µg/Kg-dry	1	2/20/2020 01:35 AM
Aroclor 1221	ND		170	µg/Kg-dry	1	2/20/2020 01:35 AM
Aroclor 1232	ND		170	µg/Kg-dry	1	2/20/2020 01:35 AM
Aroclor 1242	ND		170	µg/Kg-dry	1	2/20/2020 01:35 AM
Aroclor 1248	ND		170	µg/Kg-dry	1	2/20/2020 01:35 AM
Aroclor 1254	ND		170	µg/Kg-dry	1	2/20/2020 01:35 AM
Aroclor 1260	ND		170	µg/Kg-dry	1	2/20/2020 01:35 AM
Aroclor 1262	ND		170	µg/Kg-dry	1	2/20/2020 01:35 AM
Aroclor 1268	ND		170	µg/Kg-dry	1	2/20/2020 01:35 AM
Surr: Decachlorobiphenyl	*65.6*		*40-140*	*%REC*	1	2/20/2020 01:35 AM
Surr: Tetrachloro-m-xylene	*68.9*		*45-124*	*%REC*	1	2/20/2020 01:35 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**15**		**0.10**	**% of sample**	1	2/19/2020 02:31 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-8R 0-01 **Lab ID:** 20021144-27
Collection Date: 2/17/2020 11:55 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/19/20 13:05		Analyst: **RM**
Aroclor 1016	ND		76	µg/Kg-dry	1	2/20/2020 01:50 AM
Aroclor 1221	ND		76	µg/Kg-dry	1	2/20/2020 01:50 AM
Aroclor 1232	ND		76	µg/Kg-dry	1	2/20/2020 01:50 AM
Aroclor 1242	ND		76	µg/Kg-dry	1	2/20/2020 01:50 AM
Aroclor 1248	ND		76	µg/Kg-dry	1	2/20/2020 01:50 AM
Aroclor 1254	ND		76	µg/Kg-dry	1	2/20/2020 01:50 AM
Aroclor 1260	ND		76	µg/Kg-dry	1	2/20/2020 01:50 AM
Aroclor 1262	ND		76	µg/Kg-dry	1	2/20/2020 01:50 AM
Aroclor 1268	ND		76	µg/Kg-dry	1	2/20/2020 01:50 AM
Surr: Decachlorobiphenyl	*40.5*		*40-140*	*%REC*	1	2/20/2020 01:50 AM
Surr: Tetrachloro-m-xylene	*56.1*		*45-124*	*%REC*	1	2/20/2020 01:50 AM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/21/20 16:19		Analyst: **RSH**
Mercury	**0.087**		**0.020**	**mg/Kg-dry**	1	2/24/2020 03:36 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/19/20 17:56		Analyst: **STP**
Arsenic	**8.3**		**0.45**	**mg/Kg-dry**	1	2/19/2020 09:54 PM
Barium	**45**		**0.45**	**mg/Kg-dry**	1	2/19/2020 09:54 PM
Cadmium	ND		0.18	mg/Kg-dry	1	2/19/2020 09:54 PM
Chromium	**18**		**0.45**	**mg/Kg-dry**	1	2/19/2020 09:54 PM
Copper	**22**		**4.5**	**mg/Kg-dry**	10	2/20/2020 06:54 PM
Lead	**11**		**0.45**	**mg/Kg-dry**	1	2/19/2020 09:54 PM
Nickel	**23**		**0.45**	**mg/Kg-dry**	1	2/19/2020 09:54 PM
Selenium	ND		0.45	mg/Kg-dry	1	2/20/2020 06:59 PM
Silver	ND		0.45	mg/Kg-dry	1	2/19/2020 09:54 PM
Thorium	**4.6**		**0.45**	**mg/Kg-dry**	1	2/19/2020 09:54 PM
Uranium	**1.4**		**0.45**	**mg/Kg-dry**	1	2/19/2020 09:54 PM
Zinc	**45**		**0.89**	**mg/Kg-dry**	1	2/19/2020 09:54 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:31		Analyst: **EEW**
1-Methylnaphthalene	ND		4.9	µg/Kg-dry	1	2/21/2020 03:15 AM
2-Chloronaphthalene	ND		4.9	µg/Kg-dry	1	2/21/2020 03:15 AM
2-Methylnaphthalene	ND		4.9	µg/Kg-dry	1	2/21/2020 03:15 AM
Acenaphthene	ND		4.9	µg/Kg-dry	1	2/21/2020 03:15 AM
Acenaphthylene	ND		4.9	µg/Kg-dry	1	2/21/2020 03:15 AM
Anthracene	ND		4.9	µg/Kg-dry	1	2/21/2020 03:15 AM
Benzo(a)anthracene	**5.1**		**4.9**	**µg/Kg-dry**	1	2/21/2020 03:15 AM
Benzo(a)pyrene	ND		4.9	µg/Kg-dry	1	2/21/2020 03:15 AM
Benzo(b)fluoranthene	ND		4.9	µg/Kg-dry	1	2/21/2020 03:15 AM
Benzo(g,h,i)perylene	ND		4.9	µg/Kg-dry	1	2/21/2020 03:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-8R 0-01 **Lab ID:** 20021144-27
Collection Date: 2/17/2020 11:55 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		4.9	µg/Kg-dry	1	2/21/2020 03:15 AM
Chrysene	ND		4.9	µg/Kg-dry	1	2/21/2020 03:15 AM
Dibenzo(a,h)anthracene	ND		4.9	µg/Kg-dry	1	2/21/2020 03:15 AM
Fluoranthene	**5.0**		**4.9**	**µg/Kg-dry**	1	2/21/2020 03:15 AM
Fluorene	ND		4.9	µg/Kg-dry	1	2/21/2020 03:15 AM
Indeno(1,2,3-cd)pyrene	ND		4.9	µg/Kg-dry	1	2/21/2020 03:15 AM
Naphthalene	ND		4.9	µg/Kg-dry	1	2/21/2020 03:15 AM
Phenanthrene	**5.0**		**4.9**	**µg/Kg-dry**	1	2/21/2020 03:15 AM
Pyrene	**5.1**		**4.9**	**µg/Kg-dry**	1	2/21/2020 03:15 AM
Surr: 2-Fluorobiphenyl	*92.8*		*20-140*	*%REC*	1	2/21/2020 03:15 AM
Surr: 4-Terphenyl-d14	*94.9*		*22-172*	*%REC*	1	2/21/2020 03:15 AM
Surr: Nitrobenzene-d5	*113*		*28-140*	*%REC*	1	2/21/2020 03:15 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/18/20 14:08		Analyst: **BG**
1,1,1,2-Tetrachloroethane	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
1,1,1-Trichloroethane	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
1,1,2,2-Tetrachloroethane	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
1,1,2-Trichloroethane	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
1,1,2-Trichlorotrifluoroethane	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
1,1-Dichloroethane	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
1,1-Dichloroethene	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
1,2,3-Trichloropropane	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
1,2,4-Trichlorobenzene	ND		140	µg/Kg-dry	1	2/21/2020 05:05 AM
1,2,4-Trimethylbenzene	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
1,2-Dibromo-3-chloropropane	ND		140	µg/Kg-dry	1	2/21/2020 05:05 AM
1,2-Dibromoethane	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
1,2-Dichlorobenzene	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
1,2-Dichloroethane	ND		140	µg/Kg-dry	1	2/21/2020 05:05 AM
1,2-Dichloropropane	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
1,3,5-Trimethylbenzene	ND		140	µg/Kg-dry	1	2/21/2020 05:05 AM
1,3-Dichlorobenzene	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
1,4-Dichlorobenzene	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
2-Butanone	ND		270	µg/Kg-dry	1	2/21/2020 05:05 AM
2-Hexanone	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
2-Methylnaphthalene	ND		140	µg/Kg-dry	1	2/21/2020 05:05 AM
4-Methyl-2-pentanone	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
Acetone	ND		140	µg/Kg-dry	1	2/21/2020 05:05 AM
Acrylonitrile	ND		140	µg/Kg-dry	1	2/21/2020 05:05 AM
Benzene	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
Bromochloromethane	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
Bromodichloromethane	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-8R 0-01 **Lab ID:** 20021144-27
Collection Date: 2/17/2020 11:55 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
Bromomethane	ND		140	µg/Kg-dry	1	2/21/2020 05:05 AM
Carbon disulfide	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
Carbon tetrachloride	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
Chlorobenzene	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
Chloroethane	ND		140	µg/Kg-dry	1	2/21/2020 05:05 AM
Chloroform	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
Chloromethane	ND		140	µg/Kg-dry	1	2/21/2020 05:05 AM
cis-1,2-Dichloroethene	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
cis-1,3-Dichloropropene	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
Dibromochloromethane	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
Dibromomethane	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
Dichlorodifluoromethane	ND		140	µg/Kg-dry	1	2/21/2020 05:05 AM
Diethyl ether	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
Ethylbenzene	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
Hexachloroethane	ND		140	µg/Kg-dry	1	2/21/2020 05:05 AM
Isopropylbenzene	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
m,p-Xylene	ND		81	µg/Kg-dry	1	2/21/2020 05:05 AM
Methyl iodide	ND		680	µg/Kg-dry	1	2/21/2020 05:05 AM
Methyl tert-butyl ether	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
Methylene chloride	ND		340	µg/Kg-dry	1	2/21/2020 05:05 AM
Naphthalene	ND		140	µg/Kg-dry	1	2/21/2020 05:05 AM
n-Propylbenzene	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
o-Xylene	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
Styrene	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
Tetrachloroethene	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
Toluene	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
trans-1,2-Dichloroethene	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
trans-1,3-Dichloropropene	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
trans-1,4-Dichloro-2-butene	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
Trichloroethene	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
Trichlorofluoromethane	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
Vinyl acetate	ND		340	µg/Kg-dry	1	2/21/2020 05:05 AM
Vinyl chloride	ND		41	µg/Kg-dry	1	2/21/2020 05:05 AM
Xylenes, Total	ND		120	µg/Kg-dry	1	2/21/2020 05:05 AM
Surr: 1,2-Dichloroethane-d4	*96.3*		*70-130*	*%REC*	1	2/21/2020 05:05 AM
Surr: 4-Bromofluorobenzene	*96.2*		*70-130*	*%REC*	1	2/21/2020 05:05 AM
Surr: Dibromofluoromethane	*93.8*		*70-130*	*%REC*	1	2/21/2020 05:05 AM
Surr: Toluene-d8	*94.7*		*70-130*	*%REC*	1	2/21/2020 05:05 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/18/20 17:41 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-8R 0-01
Collection Date: 2/17/2020 11:55 AM

Work Order: 20021144
Lab ID: 20021144-27
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	ND		0.024	mg/Kg-dry	1	2/23/2020 01:05 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**17**		**0.10**	**% of sample**	1	2/19/2020 02:31 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/19/20 11:33	Analyst: **JZB**
Phosphorus, Total	**380**		**120**	**mg/Kg-dry**	4	2/21/2020 11:49 AM
PH			**SW9045D**		Prep: EXTRACT 2/18/20 15:00	Analyst: **DNW**
pH	**8.61**		**0.100**	**s.u.**	1	2/19/2020 09:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-8R 1-2 **Lab ID:** 20021144-28
Collection Date: 2/17/2020 12:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/19/20 13:05		Analyst: **RM**
Aroclor 1016	ND		170	µg/Kg-dry	1	2/20/2020 02:06 AM
Aroclor 1221	ND		170	µg/Kg-dry	1	2/20/2020 02:06 AM
Aroclor 1232	ND		170	µg/Kg-dry	1	2/20/2020 02:06 AM
Aroclor 1242	ND		170	µg/Kg-dry	1	2/20/2020 02:06 AM
Aroclor 1248	ND		170	µg/Kg-dry	1	2/20/2020 02:06 AM
Aroclor 1254	ND		170	µg/Kg-dry	1	2/20/2020 02:06 AM
Aroclor 1260	ND		170	µg/Kg-dry	1	2/20/2020 02:06 AM
Aroclor 1262	ND		170	µg/Kg-dry	1	2/20/2020 02:06 AM
Aroclor 1268	ND		170	µg/Kg-dry	1	2/20/2020 02:06 AM
Surr: Decachlorobiphenyl	*38.5*	S	*40-140*	*%REC*	1	2/20/2020 02:06 AM
Surr: Tetrachloro-m-xylene	*58.4*		*45-124*	*%REC*	1	2/20/2020 02:06 AM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/21/20 16:19		Analyst: **RSH**
Mercury	**0.021**		**0.021**	**mg/Kg-dry**	1	2/24/2020 03:38 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/19/20 17:56		Analyst: **STP**
Arsenic	**8.1**		**0.51**	**mg/Kg-dry**	1	2/19/2020 09:56 PM
Barium	**84**		**0.51**	**mg/Kg-dry**	1	2/19/2020 09:56 PM
Cadmium	ND		0.21	mg/Kg-dry	1	2/19/2020 09:56 PM
Chromium	**18**		**0.51**	**mg/Kg-dry**	1	2/19/2020 09:56 PM
Copper	**17**		**0.51**	**mg/Kg-dry**	1	2/19/2020 09:56 PM
Lead	**9.9**		**0.51**	**mg/Kg-dry**	1	2/19/2020 09:56 PM
Nickel	**24**		**0.51**	**mg/Kg-dry**	1	2/19/2020 09:56 PM
Selenium	ND		0.51	mg/Kg-dry	1	2/20/2020 07:01 PM
Silver	ND		0.51	mg/Kg-dry	1	2/19/2020 09:56 PM
Thorium	**5.2**		**0.51**	**mg/Kg-dry**	1	2/19/2020 09:56 PM
Uranium	**1.3**		**0.51**	**mg/Kg-dry**	1	2/19/2020 09:56 PM
Zinc	**41**		**1.0**	**mg/Kg-dry**	1	2/19/2020 09:56 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:31		Analyst: **EEW**
1-Methylnaphthalene	ND		5.2	µg/Kg-dry	1	2/21/2020 03:31 AM
2-Chloronaphthalene	ND		5.2	µg/Kg-dry	1	2/21/2020 03:31 AM
2-Methylnaphthalene	ND		5.2	µg/Kg-dry	1	2/21/2020 03:31 AM
Acenaphthene	ND		5.2	µg/Kg-dry	1	2/21/2020 03:31 AM
Acenaphthylene	ND		5.2	µg/Kg-dry	1	2/21/2020 03:31 AM
Anthracene	ND		5.2	µg/Kg-dry	1	2/21/2020 03:31 AM
Benzo(a)anthracene	ND		5.2	µg/Kg-dry	1	2/21/2020 03:31 AM
Benzo(a)pyrene	ND		5.2	µg/Kg-dry	1	2/21/2020 03:31 AM
Benzo(b)fluoranthene	ND		5.2	µg/Kg-dry	1	2/21/2020 03:31 AM
Benzo(g,h,i)perylene	ND		5.2	µg/Kg-dry	1	2/21/2020 03:31 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-8R 1-2 **Lab ID:** 20021144-28
Collection Date: 2/17/2020 12:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.2	µg/Kg-dry	1	2/21/2020 03:31 AM
Chrysene	ND		5.2	µg/Kg-dry	1	2/21/2020 03:31 AM
Dibenzo(a,h)anthracene	ND		5.2	µg/Kg-dry	1	2/21/2020 03:31 AM
Fluoranthene	ND		5.2	µg/Kg-dry	1	2/21/2020 03:31 AM
Fluorene	ND		5.2	µg/Kg-dry	1	2/21/2020 03:31 AM
Indeno(1,2,3-cd)pyrene	ND		5.2	µg/Kg-dry	1	2/21/2020 03:31 AM
Naphthalene	ND		5.2	µg/Kg-dry	1	2/21/2020 03:31 AM
Phenanthrene	ND		5.2	µg/Kg-dry	1	2/21/2020 03:31 AM
Pyrene	ND		5.2	µg/Kg-dry	1	2/21/2020 03:31 AM
Surr: 2-Fluorobiphenyl	*92.4*		*20-140*	*%REC*	1	2/21/2020 03:31 AM
Surr: 4-Terphenyl-d14	*94.0*		*22-172*	*%REC*	1	2/21/2020 03:31 AM
Surr: Nitrobenzene-d5	*109*		*28-140*	*%REC*	1	2/21/2020 03:31 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/18/20 14:08		Analyst: **JNS**
1,1,1,2-Tetrachloroethane	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
1,1,1-Trichloroethane	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
1,1,2,2-Tetrachloroethane	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
1,1,2-Trichloroethane	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
1,1,2-Trichlorotrifluoroethane	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
1,1-Dichloroethane	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
1,1-Dichloroethene	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
1,2,3-Trichloropropane	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
1,2,4-Trichlorobenzene	ND		170	µg/Kg-dry	1	2/22/2020 12:56 PM
1,2,4-Trimethylbenzene	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
1,2-Dibromo-3-chloropropane	ND		170	µg/Kg-dry	1	2/22/2020 12:56 PM
1,2-Dibromoethane	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
1,2-Dichlorobenzene	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
1,2-Dichloroethane	ND		170	µg/Kg-dry	1	2/22/2020 12:56 PM
1,2-Dichloropropane	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
1,3,5-Trimethylbenzene	ND		170	µg/Kg-dry	1	2/22/2020 12:56 PM
1,3-Dichlorobenzene	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
1,4-Dichlorobenzene	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
2-Butanone	ND		340	µg/Kg-dry	1	2/22/2020 12:56 PM
2-Hexanone	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
2-Methylnaphthalene	ND		170	µg/Kg-dry	1	2/22/2020 12:56 PM
4-Methyl-2-pentanone	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
Acetone	ND		170	µg/Kg-dry	1	2/22/2020 12:56 PM
Acrylonitrile	ND		170	µg/Kg-dry	1	2/22/2020 12:56 PM
Benzene	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
Bromochloromethane	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
Bromodichloromethane	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-8R 1-2 **Lab ID:** 20021144-28
Collection Date: 2/17/2020 12:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
Bromomethane	ND		170	µg/Kg-dry	1	2/22/2020 12:56 PM
Carbon disulfide	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
Carbon tetrachloride	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
Chlorobenzene	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
Chloroethane	ND		170	µg/Kg-dry	1	2/22/2020 12:56 PM
Chloroform	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
Chloromethane	ND		170	µg/Kg-dry	1	2/22/2020 12:56 PM
cis-1,2-Dichloroethene	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
cis-1,3-Dichloropropene	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
Dibromochloromethane	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
Dibromomethane	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
Dichlorodifluoromethane	ND		170	µg/Kg-dry	1	2/22/2020 12:56 PM
Diethyl ether	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
Ethylbenzene	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
Hexachloroethane	ND		170	µg/Kg-dry	1	2/22/2020 12:56 PM
Isopropylbenzene	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
m,p-Xylene	ND		100	µg/Kg-dry	1	2/22/2020 12:56 PM
Methyl iodide	ND		840	µg/Kg-dry	1	2/22/2020 12:56 PM
Methyl tert-butyl ether	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
Methylene chloride	ND		420	µg/Kg-dry	1	2/22/2020 12:56 PM
Naphthalene	ND		170	µg/Kg-dry	1	2/22/2020 12:56 PM
n-Propylbenzene	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
o-Xylene	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
Styrene	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
Tetrachloroethene	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
Toluene	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
trans-1,2-Dichloroethene	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
trans-1,3-Dichloropropene	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
trans-1,4-Dichloro-2-butene	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
Trichloroethene	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
Trichlorofluoromethane	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
Vinyl acetate	ND		420	µg/Kg-dry	1	2/22/2020 12:56 PM
Vinyl chloride	ND		50	µg/Kg-dry	1	2/22/2020 12:56 PM
Xylenes, Total	ND		150	µg/Kg-dry	1	2/22/2020 12:56 PM
Surr: 1,2-Dichloroethane-d4	*96.2*		*70-130*	*%REC*	1	2/22/2020 12:56 PM
Surr: 4-Bromofluorobenzene	*82.6*		*70-130*	*%REC*	1	2/22/2020 12:56 PM
Surr: Dibromofluoromethane	*96.4*		*70-130*	*%REC*	1	2/22/2020 12:56 PM
Surr: Toluene-d8	*112*		*70-130*	*%REC*	1	2/22/2020 12:56 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/18/20 17:41 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-8R 1-2
Collection Date: 2/17/2020 12:00 PM

Work Order: 20021144
Lab ID: 20021144-28
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	ND		0.026	mg/Kg-dry	1	2/23/2020 01:05 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**23**		**0.10**	**% of sample**	1	2/19/2020 02:31 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/19/20 11:33	Analyst: **JZB**
Phosphorus, Total	**450**		**280**	**mg/Kg-dry**	10	2/21/2020 01:04 PM
PH			**SW9045D**		Prep: EXTRACT 2/18/20 15:00	Analyst: **DNW**
pH	**8.65**		**0.100**	**s.u.**	1	2/19/2020 09:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021144
Sample ID: S-8R 2-3
Lab ID: 20021144-29
Collection Date: 2/17/2020 12:05 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/21/20 16:57		Analyst: **RM**
Aroclor 1016	ND		87	µg/Kg-dry	1	2/24/2020 01:08 PM
Aroclor 1221	ND		87	µg/Kg-dry	1	2/24/2020 01:08 PM
Aroclor 1232	ND		87	µg/Kg-dry	1	2/24/2020 01:08 PM
Aroclor 1242	ND		87	µg/Kg-dry	1	2/24/2020 01:08 PM
Aroclor 1248	ND		87	µg/Kg-dry	1	2/24/2020 01:08 PM
Aroclor 1254	ND		87	µg/Kg-dry	1	2/24/2020 01:08 PM
Aroclor 1260	ND		87	µg/Kg-dry	1	2/24/2020 01:08 PM
Aroclor 1262	ND		87	µg/Kg-dry	1	2/24/2020 01:08 PM
Aroclor 1268	ND		87	µg/Kg-dry	1	2/24/2020 01:08 PM
Surr: Decachlorobiphenyl	*43.7*		*40-140*	*%REC*	1	2/24/2020 01:08 PM
Surr: Tetrachloro-m-xylene	*65.8*		*45-124*	*%REC*	1	2/24/2020 01:08 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/21/20 16:19		Analyst: **RSH**
Mercury	ND		0.021	mg/Kg-dry	1	2/24/2020 03:40 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/19/20 17:56		Analyst: **STP**
Arsenic	**9.9**		**0.45**	**mg/Kg-dry**	1	2/19/2020 09:58 PM
Barium	**130**		**0.45**	**mg/Kg-dry**	1	2/19/2020 09:58 PM
Cadmium	ND		0.18	mg/Kg-dry	1	2/19/2020 09:58 PM
Chromium	**21**		**0.45**	**mg/Kg-dry**	1	2/19/2020 09:58 PM
Copper	**25**		**4.5**	**mg/Kg-dry**	10	2/20/2020 06:56 PM
Lead	**10**		**0.45**	**mg/Kg-dry**	1	2/19/2020 09:58 PM
Nickel	**25**		**0.45**	**mg/Kg-dry**	1	2/19/2020 09:58 PM
Selenium	ND		0.45	mg/Kg-dry	1	2/20/2020 07:03 PM
Silver	ND		0.45	mg/Kg-dry	1	2/19/2020 09:58 PM
Thorium	**5.5**		**0.45**	**mg/Kg-dry**	1	2/19/2020 09:58 PM
Uranium	**1.3**		**0.45**	**mg/Kg-dry**	1	2/19/2020 09:58 PM
Zinc	**45**		**0.91**	**mg/Kg-dry**	1	2/19/2020 09:58 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:31		Analyst: **EEW**
1-Methylnaphthalene	ND		5.4	µg/Kg-dry	1	2/21/2020 03:46 AM
2-Chloronaphthalene	ND		5.4	µg/Kg-dry	1	2/21/2020 03:46 AM
2-Methylnaphthalene	ND		5.4	µg/Kg-dry	1	2/21/2020 03:46 AM
Acenaphthene	ND		5.4	µg/Kg-dry	1	2/21/2020 03:46 AM
Acenaphthylene	ND		5.4	µg/Kg-dry	1	2/21/2020 03:46 AM
Anthracene	ND		5.4	µg/Kg-dry	1	2/21/2020 03:46 AM
Benzo(a)anthracene	ND		5.4	µg/Kg-dry	1	2/21/2020 03:46 AM
Benzo(a)pyrene	ND		5.4	µg/Kg-dry	1	2/21/2020 03:46 AM
Benzo(b)fluoranthene	ND		5.4	µg/Kg-dry	1	2/21/2020 03:46 AM
Benzo(g,h,i)perylene	ND		5.4	µg/Kg-dry	1	2/21/2020 03:46 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-8R 2-3 **Lab ID:** 20021144-29
Collection Date: 2/17/2020 12:05 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.4	µg/Kg-dry	1	2/21/2020 03:46 AM
Chrysene	ND		5.4	µg/Kg-dry	1	2/21/2020 03:46 AM
Dibenzo(a,h)anthracene	ND		5.4	µg/Kg-dry	1	2/21/2020 03:46 AM
Fluoranthene	ND		5.4	µg/Kg-dry	1	2/21/2020 03:46 AM
Fluorene	ND		5.4	µg/Kg-dry	1	2/21/2020 03:46 AM
Indeno(1,2,3-cd)pyrene	ND		5.4	µg/Kg-dry	1	2/21/2020 03:46 AM
Naphthalene	ND		5.4	µg/Kg-dry	1	2/21/2020 03:46 AM
Phenanthrene	ND		5.4	µg/Kg-dry	1	2/21/2020 03:46 AM
Pyrene	ND		5.4	µg/Kg-dry	1	2/21/2020 03:46 AM
Surr: 2-Fluorobiphenyl	*87.4*		*20-140*	*%REC*	1	2/21/2020 03:46 AM
Surr: 4-Terphenyl-d14	*86.7*		*22-172*	*%REC*	1	2/21/2020 03:46 AM
Surr: Nitrobenzene-d5	*109*		*28-140*	*%REC*	1	2/21/2020 03:46 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/18/20 14:08		Analyst: **BG**
1,1,1,2-Tetrachloroethane	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
1,1,1-Trichloroethane	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
1,1,2,2-Tetrachloroethane	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
1,1,2-Trichloroethane	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
1,1,2-Trichlorotrifluoroethane	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
1,1-Dichloroethane	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
1,1-Dichloroethene	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
1,2,3-Trichloropropane	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
1,2,4-Trichlorobenzene	ND		160	µg/Kg-dry	1	2/21/2020 08:00 AM
1,2,4-Trimethylbenzene	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
1,2-Dibromo-3-chloropropane	ND		160	µg/Kg-dry	1	2/21/2020 08:00 AM
1,2-Dibromoethane	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
1,2-Dichlorobenzene	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
1,2-Dichloroethane	ND		160	µg/Kg-dry	1	2/21/2020 08:00 AM
1,2-Dichloropropane	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
1,3,5-Trimethylbenzene	ND		160	µg/Kg-dry	1	2/21/2020 08:00 AM
1,3-Dichlorobenzene	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
1,4-Dichlorobenzene	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
2-Butanone	ND		320	µg/Kg-dry	1	2/21/2020 08:00 AM
2-Hexanone	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
2-Methylnaphthalene	ND		160	µg/Kg-dry	1	2/21/2020 08:00 AM
4-Methyl-2-pentanone	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
Acetone	ND		160	µg/Kg-dry	1	2/21/2020 08:00 AM
Acrylonitrile	ND		160	µg/Kg-dry	1	2/21/2020 08:00 AM
Benzene	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
Bromochloromethane	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
Bromodichloromethane	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-8R 2-3
Collection Date: 2/17/2020 12:05 PM

Work Order: 20021144
Lab ID: 20021144-29
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
Bromomethane	ND		160	µg/Kg-dry	1	2/21/2020 08:00 AM
Carbon disulfide	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
Carbon tetrachloride	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
Chlorobenzene	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
Chloroethane	ND		160	µg/Kg-dry	1	2/21/2020 08:00 AM
Chloroform	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
Chloromethane	ND		160	µg/Kg-dry	1	2/21/2020 08:00 AM
cis-1,2-Dichloroethene	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
cis-1,3-Dichloropropene	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
Dibromochloromethane	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
Dibromomethane	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
Dichlorodifluoromethane	ND		160	µg/Kg-dry	1	2/21/2020 08:00 AM
Diethyl ether	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
Ethylbenzene	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
Hexachloroethane	ND		160	µg/Kg-dry	1	2/21/2020 08:00 AM
Isopropylbenzene	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
m,p-Xylene	ND		96	µg/Kg-dry	1	2/21/2020 08:00 AM
Methyl iodide	ND		800	µg/Kg-dry	1	2/21/2020 08:00 AM
Methyl tert-butyl ether	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
Methylene chloride	ND		400	µg/Kg-dry	1	2/21/2020 08:00 AM
Naphthalene	ND		160	µg/Kg-dry	1	2/21/2020 08:00 AM
n-Propylbenzene	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
o-Xylene	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
Styrene	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
Tetrachloroethene	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
Toluene	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
trans-1,2-Dichloroethene	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
trans-1,3-Dichloropropene	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
trans-1,4-Dichloro-2-butene	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
Trichloroethene	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
Trichlorofluoromethane	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
Vinyl acetate	ND		400	µg/Kg-dry	1	2/21/2020 08:00 AM
Vinyl chloride	ND		48	µg/Kg-dry	1	2/21/2020 08:00 AM
Xylenes, Total	ND		140	µg/Kg-dry	1	2/21/2020 08:00 AM
Surr: 1,2-Dichloroethane-d4	*96.4*		*70-130*	*%REC*	1	2/21/2020 08:00 AM
Surr: 4-Bromofluorobenzene	*94.9*		*70-130*	*%REC*	1	2/21/2020 08:00 AM
Surr: Dibromofluoromethane	*95.2*		*70-130*	*%REC*	1	2/21/2020 08:00 AM
Surr: Toluene-d8	*95.6*		*70-130*	*%REC*	1	2/21/2020 08:00 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/18/20 17:41 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021144
Sample ID: S-8R 2-3
Lab ID: 20021144-29
Collection Date: 2/17/2020 12:05 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor		Date Analyzed
Biochemical Oxygen Demand	**0.039**		**0.026**	**mg/Kg-dry**	1		2/23/2020 01:05 PM
MOISTURE			**SW3550C**				Analyst: **KTP**
Moisture	**24**		**0.10**	**% of sample**	1		2/19/2020 02:31 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0	2/19/20 11:33	Analyst: **JZB**
Phosphorus, Total	**450**		**150**	**mg/Kg-dry**	4		2/21/2020 11:56 AM
PH			**SW9045D**		Prep: EXTRACT	2/18/20 15:00	Analyst: **DNW**
pH	**8.61**		**0.100**	**s.u.**	1		2/19/2020 09:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-8R 3-4
Collection Date: 2/17/2020 12:10 PM

Work Order: 20021144
Lab ID: 20021144-30
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/21/20 16:57		Analyst: **RM**
Aroclor 1016	ND		86	µg/Kg-dry	1	2/24/2020 01:24 PM
Aroclor 1221	ND		86	µg/Kg-dry	1	2/24/2020 01:24 PM
Aroclor 1232	ND		86	µg/Kg-dry	1	2/24/2020 01:24 PM
Aroclor 1242	ND		86	µg/Kg-dry	1	2/24/2020 01:24 PM
Aroclor 1248	ND		86	µg/Kg-dry	1	2/24/2020 01:24 PM
Aroclor 1254	ND		86	µg/Kg-dry	1	2/24/2020 01:24 PM
Aroclor 1260	ND		86	µg/Kg-dry	1	2/24/2020 01:24 PM
Aroclor 1262	ND		86	µg/Kg-dry	1	2/24/2020 01:24 PM
Aroclor 1268	ND		86	µg/Kg-dry	1	2/24/2020 01:24 PM
Surr: Decachlorobiphenyl	*49.6*		*40-140*	*%REC*	1	2/24/2020 01:24 PM
Surr: Tetrachloro-m-xylene	*65.8*		*45-124*	*%REC*	1	2/24/2020 01:24 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/21/20 16:19		Analyst: **RSH**
Mercury	ND		0.023	mg/Kg-dry	1	2/24/2020 03:42 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/19/20 17:56		Analyst: **STP**
Arsenic	**4.9**		**0.49**	**mg/Kg-dry**	1	2/19/2020 10:00 PM
Barium	**87**		**0.49**	**mg/Kg-dry**	1	2/19/2020 10:00 PM
Cadmium	ND		0.20	mg/Kg-dry	1	2/19/2020 10:00 PM
Chromium	**17**		**0.49**	**mg/Kg-dry**	1	2/19/2020 10:00 PM
Copper	**48**		**4.9**	**mg/Kg-dry**	10	2/20/2020 06:57 PM
Lead	**10**		**0.49**	**mg/Kg-dry**	1	2/19/2020 10:00 PM
Nickel	**23**		**0.49**	**mg/Kg-dry**	1	2/19/2020 10:00 PM
Selenium	ND		0.49	mg/Kg-dry	1	2/20/2020 07:04 PM
Silver	ND		0.49	mg/Kg-dry	1	2/19/2020 10:00 PM
Thorium	**4.8**		**0.49**	**mg/Kg-dry**	1	2/19/2020 10:00 PM
Uranium	**1.4**		**0.49**	**mg/Kg-dry**	1	2/19/2020 10:00 PM
Zinc	**43**		**0.98**	**mg/Kg-dry**	1	2/19/2020 10:00 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:31		Analyst: **EEW**
1-Methylnaphthalene	ND		5.5	µg/Kg-dry	1	2/21/2020 04:02 AM
2-Chloronaphthalene	ND		5.5	µg/Kg-dry	1	2/21/2020 04:02 AM
2-Methylnaphthalene	ND		5.5	µg/Kg-dry	1	2/21/2020 04:02 AM
Acenaphthene	ND		5.5	µg/Kg-dry	1	2/21/2020 04:02 AM
Acenaphthylene	ND		5.5	µg/Kg-dry	1	2/21/2020 04:02 AM
Anthracene	ND		5.5	µg/Kg-dry	1	2/21/2020 04:02 AM
Benzo(a)anthracene	ND		5.5	µg/Kg-dry	1	2/21/2020 04:02 AM
Benzo(a)pyrene	ND		5.5	µg/Kg-dry	1	2/21/2020 04:02 AM
Benzo(b)fluoranthene	ND		5.5	µg/Kg-dry	1	2/21/2020 04:02 AM
Benzo(g,h,i)perylene	ND		5.5	µg/Kg-dry	1	2/21/2020 04:02 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-8R 3-4 **Lab ID:** 20021144-30
Collection Date: 2/17/2020 12:10 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.5	µg/Kg-dry	1	2/21/2020 04:02 AM
Chrysene	ND		5.5	µg/Kg-dry	1	2/21/2020 04:02 AM
Dibenzo(a,h)anthracene	ND		5.5	µg/Kg-dry	1	2/21/2020 04:02 AM
Fluoranthene	**5.9**		**5.5**	**µg/Kg-dry**	1	2/21/2020 04:02 AM
Fluorene	ND		5.5	µg/Kg-dry	1	2/21/2020 04:02 AM
Indeno(1,2,3-cd)pyrene	ND		5.5	µg/Kg-dry	1	2/21/2020 04:02 AM
Naphthalene	ND		5.5	µg/Kg-dry	1	2/21/2020 04:02 AM
Phenanthrene	**15**		**5.5**	**µg/Kg-dry**	1	2/21/2020 04:02 AM
Pyrene	ND		5.5	µg/Kg-dry	1	2/21/2020 04:02 AM
Surr: 2-Fluorobiphenyl	*92.2*		*20-140*	*%REC*	1	2/21/2020 04:02 AM
Surr: 4-Terphenyl-d14	*95.6*		*22-172*	*%REC*	1	2/21/2020 04:02 AM
Surr: Nitrobenzene-d5	*113*		*28-140*	*%REC*	1	2/21/2020 04:02 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/18/20 14:08		Analyst: **JNS**
1,1,1,2-Tetrachloroethane	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
1,1,1-Trichloroethane	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
1,1,2,2-Tetrachloroethane	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
1,1,2-Trichloroethane	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
1,1,2-Trichlorotrifluoroethane	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
1,1-Dichloroethane	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
1,1-Dichloroethene	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
1,2,3-Trichloropropane	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
1,2,4-Trichlorobenzene	ND		180	µg/Kg-dry	1	2/22/2020 01:18 AM
1,2,4-Trimethylbenzene	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
1,2-Dibromo-3-chloropropane	ND		180	µg/Kg-dry	1	2/22/2020 01:18 AM
1,2-Dibromoethane	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
1,2-Dichlorobenzene	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
1,2-Dichloroethane	ND		180	µg/Kg-dry	1	2/22/2020 01:18 AM
1,2-Dichloropropane	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
1,3,5-Trimethylbenzene	ND		180	µg/Kg-dry	1	2/22/2020 01:18 AM
1,3-Dichlorobenzene	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
1,4-Dichlorobenzene	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
2-Butanone	ND		360	µg/Kg-dry	1	2/22/2020 01:18 AM
2-Hexanone	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
2-Methylnaphthalene	ND		180	µg/Kg-dry	1	2/22/2020 01:18 AM
4-Methyl-2-pentanone	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
Acetone	ND		180	µg/Kg-dry	1	2/22/2020 01:18 AM
Acrylonitrile	ND		180	µg/Kg-dry	1	2/22/2020 01:18 AM
Benzene	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
Bromochloromethane	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
Bromodichloromethane	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-8R 3-4 **Lab ID:** 20021144-30
Collection Date: 2/17/2020 12:10 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
Bromomethane	ND		180	µg/Kg-dry	1	2/22/2020 01:18 AM
Carbon disulfide	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
Carbon tetrachloride	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
Chlorobenzene	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
Chloroethane	ND		180	µg/Kg-dry	1	2/22/2020 01:18 AM
Chloroform	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
Chloromethane	ND		180	µg/Kg-dry	1	2/22/2020 01:18 AM
cis-1,2-Dichloroethene	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
cis-1,3-Dichloropropene	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
Dibromochloromethane	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
Dibromomethane	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
Dichlorodifluoromethane	ND		180	µg/Kg-dry	1	2/22/2020 01:18 AM
Diethyl ether	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
Ethylbenzene	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
Hexachloroethane	ND		180	µg/Kg-dry	1	2/22/2020 01:18 AM
Isopropylbenzene	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
m,p-Xylene	ND		110	µg/Kg-dry	1	2/22/2020 01:18 AM
Methyl iodide	ND		910	µg/Kg-dry	1	2/22/2020 01:18 AM
Methyl tert-butyl ether	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
Methylene chloride	ND		450	µg/Kg-dry	1	2/22/2020 01:18 AM
Naphthalene	ND		180	µg/Kg-dry	1	2/22/2020 01:18 AM
n-Propylbenzene	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
o-Xylene	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
Styrene	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
Tetrachloroethene	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
Toluene	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
trans-1,2-Dichloroethene	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
trans-1,3-Dichloropropene	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
trans-1,4-Dichloro-2-butene	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
Trichloroethene	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
Trichlorofluoromethane	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
Vinyl acetate	ND		450	µg/Kg-dry	1	2/22/2020 01:18 AM
Vinyl chloride	ND		54	µg/Kg-dry	1	2/22/2020 01:18 AM
Xylenes, Total	ND		160	µg/Kg-dry	1	2/22/2020 01:18 AM
Surr: 1,2-Dichloroethane-d4	*104*		*70-130*	*%REC*	1	2/22/2020 01:18 AM
Surr: 4-Bromofluorobenzene	*96.2*		*70-130*	*%REC*	1	2/22/2020 01:18 AM
Surr: Dibromofluoromethane	*98.2*		*70-130*	*%REC*	1	2/22/2020 01:18 AM
Surr: Toluene-d8	*108*		*70-130*	*%REC*	1	2/22/2020 01:18 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/18/20 17:41 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021144
Sample ID: S-8R 3-4
Lab ID: 20021144-30
Collection Date: 2/17/2020 12:10 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor		Date Analyzed
Biochemical Oxygen Demand	**0.063**		**0.026**	**mg/Kg-dry**	1		2/23/2020 01:05 PM
MOISTURE			**SW3550C**				Analyst: **KTP**
Moisture	**26**		**0.10**	**% of sample**	1		2/19/2020 02:31 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0	2/19/20 11:33	Analyst: **JZB**
Phosphorus, Total	**490**		**130**	**mg/Kg-dry**	4		2/21/2020 11:57 AM
PH			**SW9045D**		Prep: EXTRACT	2/18/20 15:00	Analyst: **DNW**
pH	**8.68**		**0.100**	**s.u.**	1		2/19/2020 09:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-8R 4-5 **Lab ID:** 20021144-31
Collection Date: 2/17/2020 12:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/21/20 16:57		Analyst: **RM**
Aroclor 1016	ND		81	µg/Kg-dry	1	2/24/2020 12:53 PM
Aroclor 1221	ND		81	µg/Kg-dry	1	2/24/2020 12:53 PM
Aroclor 1232	ND		81	µg/Kg-dry	1	2/24/2020 12:53 PM
Aroclor 1242	ND		81	µg/Kg-dry	1	2/24/2020 12:53 PM
Aroclor 1248	ND		81	µg/Kg-dry	1	2/24/2020 12:53 PM
Aroclor 1254	ND		81	µg/Kg-dry	1	2/24/2020 12:53 PM
Aroclor 1260	ND		81	µg/Kg-dry	1	2/24/2020 12:53 PM
Aroclor 1262	ND		81	µg/Kg-dry	1	2/24/2020 12:53 PM
Aroclor 1268	ND		81	µg/Kg-dry	1	2/24/2020 12:53 PM
Surr: Decachlorobiphenyl	*48.8*		*40-140*	*%REC*	1	2/24/2020 12:53 PM
Surr: Tetrachloro-m-xylene	*61.9*		*45-124*	*%REC*	1	2/24/2020 12:53 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/21/20 16:19		Analyst: **RSH**
Mercury	ND		0.022	mg/Kg-dry	1	2/24/2020 03:50 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/20/20 14:50		Analyst: **STP**
Arsenic	**6.3**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:04 PM
Barium	**66**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:04 PM
Cadmium	ND		0.16	mg/Kg-dry	1	2/20/2020 08:04 PM
Chromium	**14**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:04 PM
Copper	**18**		**3.9**	**mg/Kg-dry**	10	2/21/2020 04:41 PM
Lead	**9.7**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:04 PM
Nickel	**25**		**3.9**	**mg/Kg-dry**	10	2/21/2020 04:41 PM
Selenium	ND		0.39	mg/Kg-dry	1	2/20/2020 08:04 PM
Silver	ND		0.39	mg/Kg-dry	1	2/20/2020 08:04 PM
Thorium	**4.1**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:04 PM
Uranium	**1.7**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:04 PM
Zinc	**40**		**0.78**	**mg/Kg-dry**	1	2/20/2020 08:04 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:31		Analyst: **EEW**
1-Methylnaphthalene	ND		4.9	µg/Kg-dry	1	2/21/2020 04:17 AM
2-Chloronaphthalene	ND		4.9	µg/Kg-dry	1	2/21/2020 04:17 AM
2-Methylnaphthalene	**9.3**		**4.9**	**µg/Kg-dry**	1	2/21/2020 04:17 AM
Acenaphthene	**5.7**		**4.9**	**µg/Kg-dry**	1	2/21/2020 04:17 AM
Acenaphthylene	ND		4.9	µg/Kg-dry	1	2/21/2020 04:17 AM
Anthracene	**11**		**4.9**	**µg/Kg-dry**	1	2/21/2020 04:17 AM
Benzo(a)anthracene	ND		4.9	µg/Kg-dry	1	2/21/2020 04:17 AM
Benzo(a)pyrene	ND		4.9	µg/Kg-dry	1	2/21/2020 04:17 AM
Benzo(b)fluoranthene	ND		4.9	µg/Kg-dry	1	2/21/2020 04:17 AM
Benzo(g,h,i)perylene	ND		4.9	µg/Kg-dry	1	2/21/2020 04:17 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-8R 4-5 **Lab ID:** 20021144-31
Collection Date: 2/17/2020 12:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		4.9	µg/Kg-dry	1	2/21/2020 04:17 AM
Chrysene	ND		4.9	µg/Kg-dry	1	2/21/2020 04:17 AM
Dibenzo(a,h)anthracene	ND		4.9	µg/Kg-dry	1	2/21/2020 04:17 AM
Fluoranthene	**9.3**		**4.9**	**µg/Kg-dry**	1	2/21/2020 04:17 AM
Fluorene	**11**		**4.9**	**µg/Kg-dry**	1	2/21/2020 04:17 AM
Indeno(1,2,3-cd)pyrene	ND		4.9	µg/Kg-dry	1	2/21/2020 04:17 AM
Naphthalene	ND		4.9	µg/Kg-dry	1	2/21/2020 04:17 AM
Phenanthrene	**35**		**4.9**	**µg/Kg-dry**	1	2/21/2020 04:17 AM
Pyrene	**6.9**		**4.9**	**µg/Kg-dry**	1	2/21/2020 04:17 AM
Surr: 2-Fluorobiphenyl	*95.2*		*20-140*	*%REC*	1	2/21/2020 04:17 AM
Surr: 4-Terphenyl-d14	*103*		*22-172*	*%REC*	1	2/21/2020 04:17 AM
Surr: Nitrobenzene-d5	*118*		*28-140*	*%REC*	1	2/21/2020 04:17 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/18/20 14:08		Analyst: **JNS**
1,1,1,2-Tetrachloroethane	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
1,1,1-Trichloroethane	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
1,1,2,2-Tetrachloroethane	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
1,1,2-Trichloroethane	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
1,1,2-Trichlorotrifluoroethane	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
1,1-Dichloroethane	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
1,1-Dichloroethene	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
1,2,3-Trichloropropane	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
1,2,4-Trichlorobenzene	ND		130	µg/Kg-dry	1	2/22/2020 01:40 AM
1,2,4-Trimethylbenzene	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
1,2-Dibromo-3-chloropropane	ND		130	µg/Kg-dry	1	2/22/2020 01:40 AM
1,2-Dibromoethane	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
1,2-Dichlorobenzene	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
1,2-Dichloroethane	ND		130	µg/Kg-dry	1	2/22/2020 01:40 AM
1,2-Dichloropropane	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
1,3,5-Trimethylbenzene	ND		130	µg/Kg-dry	1	2/22/2020 01:40 AM
1,3-Dichlorobenzene	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
1,4-Dichlorobenzene	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
2-Butanone	ND		260	µg/Kg-dry	1	2/22/2020 01:40 AM
2-Hexanone	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
2-Methylnaphthalene	ND		130	µg/Kg-dry	1	2/22/2020 01:40 AM
4-Methyl-2-pentanone	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
Acetone	ND		130	µg/Kg-dry	1	2/22/2020 01:40 AM
Acrylonitrile	ND		130	µg/Kg-dry	1	2/22/2020 01:40 AM
Benzene	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
Bromochloromethane	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
Bromodichloromethane	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-8R 4-5 **Lab ID:** 20021144-31
Collection Date: 2/17/2020 12:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
Bromomethane	ND		130	µg/Kg-dry	1	2/22/2020 01:40 AM
Carbon disulfide	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
Carbon tetrachloride	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
Chlorobenzene	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
Chloroethane	ND		130	µg/Kg-dry	1	2/22/2020 01:40 AM
Chloroform	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
Chloromethane	ND		130	µg/Kg-dry	1	2/22/2020 01:40 AM
cis-1,2-Dichloroethene	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
cis-1,3-Dichloropropene	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
Dibromochloromethane	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
Dibromomethane	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
Dichlorodifluoromethane	ND		130	µg/Kg-dry	1	2/22/2020 01:40 AM
Diethyl ether	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
Ethylbenzene	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
Hexachloroethane	ND		130	µg/Kg-dry	1	2/22/2020 01:40 AM
Isopropylbenzene	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
m,p-Xylene	ND		77	µg/Kg-dry	1	2/22/2020 01:40 AM
Methyl iodide	ND		640	µg/Kg-dry	1	2/22/2020 01:40 AM
Methyl tert-butyl ether	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
Methylene chloride	ND		320	µg/Kg-dry	1	2/22/2020 01:40 AM
Naphthalene	ND		130	µg/Kg-dry	1	2/22/2020 01:40 AM
n-Propylbenzene	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
o-Xylene	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
Styrene	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
Tetrachloroethene	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
Toluene	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
trans-1,2-Dichloroethene	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
trans-1,3-Dichloropropene	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
trans-1,4-Dichloro-2-butene	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
Trichloroethene	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
Trichlorofluoromethane	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
Vinyl acetate	ND		320	µg/Kg-dry	1	2/22/2020 01:40 AM
Vinyl chloride	ND		38	µg/Kg-dry	1	2/22/2020 01:40 AM
Xylenes, Total	ND		110	µg/Kg-dry	1	2/22/2020 01:40 AM
Surr: 1,2-Dichloroethane-d4	*106*		*70-130*	*%REC*	1	2/22/2020 01:40 AM
Surr: 4-Bromofluorobenzene	*95.7*		*70-130*	*%REC*	1	2/22/2020 01:40 AM
Surr: Dibromofluoromethane	*98.8*		*70-130*	*%REC*	1	2/22/2020 01:40 AM
Surr: Toluene-d8	*106*		*70-130*	*%REC*	1	2/22/2020 01:40 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/18/20 17:41 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-8R 4-5
Collection Date: 2/17/2020 12:15 PM

Work Order: 20021144
Lab ID: 20021144-31
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	ND		0.024	mg/Kg-dry	1	2/23/2020 01:05 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**19**		**0.10**	**% of sample**	1	2/19/2020 02:31 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**	Prep: E365.1 R2.0 2/19/20 11:33		Analyst: **JZB**
Phosphorus, Total	**450**		**120**	**mg/Kg-dry**	4	2/21/2020 11:58 AM
PH			**SW9045D**	Prep: EXTRACT 2/18/20 15:00		Analyst: **DNW**
pH	**8.54**		**0.100**	**s.u.**	1	2/19/2020 09:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-9R 0-1 **Lab ID:** 20021144-32
Collection Date: 2/17/2020 12:50 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/21/20 16:57		Analyst: **RM**
Aroclor 1016	ND		82	µg/Kg-dry	1	2/24/2020 01:39 PM
Aroclor 1221	ND		82	µg/Kg-dry	1	2/24/2020 01:39 PM
Aroclor 1232	ND		82	µg/Kg-dry	1	2/24/2020 01:39 PM
Aroclor 1242	ND		82	µg/Kg-dry	1	2/24/2020 01:39 PM
Aroclor 1248	ND		82	µg/Kg-dry	1	2/24/2020 01:39 PM
Aroclor 1254	ND		82	µg/Kg-dry	1	2/24/2020 01:39 PM
Aroclor 1260	ND		82	µg/Kg-dry	1	2/24/2020 01:39 PM
Aroclor 1262	ND		82	µg/Kg-dry	1	2/24/2020 01:39 PM
Aroclor 1268	ND		82	µg/Kg-dry	1	2/24/2020 01:39 PM
Surr: Decachlorobiphenyl	*43.5*		*40-140*	*%REC*	1	2/24/2020 01:39 PM
Surr: Tetrachloro-m-xylene	*63.5*		*45-124*	*%REC*	1	2/24/2020 01:39 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/21/20 16:19		Analyst: **RSH**
Mercury	**0.080**		**0.024**	**mg/Kg-dry**	1	2/24/2020 03:53 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/20/20 14:50		Analyst: **STP**
Arsenic	**640**		**52**	**mg/Kg-dry**	100	2/21/2020 04:44 PM
Barium	**68**		**0.52**	**mg/Kg-dry**	1	2/20/2020 08:06 PM
Cadmium	**0.51**		**0.21**	**mg/Kg-dry**	1	2/20/2020 08:06 PM
Chromium	**24**		**0.52**	**mg/Kg-dry**	1	2/20/2020 08:06 PM
Copper	**4,600**		**520**	**mg/Kg-dry**	1000	2/21/2020 04:43 PM
Lead	**44**		**0.52**	**mg/Kg-dry**	1	2/20/2020 08:06 PM
Nickel	**28**		**5.2**	**mg/Kg-dry**	10	2/21/2020 05:14 PM
Selenium	**0.79**		**0.52**	**mg/Kg-dry**	1	2/20/2020 08:06 PM
Silver	**4.1**		**0.52**	**mg/Kg-dry**	1	2/20/2020 08:06 PM
Thorium	**6.5**		**0.52**	**mg/Kg-dry**	1	2/20/2020 08:06 PM
Uranium	**1.5**		**0.52**	**mg/Kg-dry**	1	2/20/2020 08:06 PM
Zinc	**420**		**100**	**mg/Kg-dry**	100	2/21/2020 04:44 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:31		Analyst: **EEW**
1-Methylnaphthalene	**1,000**		**5.3**	**µg/Kg-dry**	1	2/21/2020 04:33 AM
2-Chloronaphthalene	ND		5.3	µg/Kg-dry	1	2/21/2020 04:33 AM
2-Methylnaphthalene	**2,000**		**5.3**	**µg/Kg-dry**	1	2/21/2020 04:33 AM
Acenaphthene	**1,600**		**5.3**	**µg/Kg-dry**	1	2/21/2020 04:33 AM
Acenaphthylene	**63**		**5.3**	**µg/Kg-dry**	1	2/21/2020 04:33 AM
Anthracene	**760**		**5.3**	**µg/Kg-dry**	1	2/21/2020 04:33 AM
Benzo(a)anthracene	**320**		**5.3**	**µg/Kg-dry**	1	2/21/2020 04:33 AM
Benzo(a)pyrene	**170**		**5.3**	**µg/Kg-dry**	1	2/21/2020 04:33 AM
Benzo(b)fluoranthene	**180**		**5.3**	**µg/Kg-dry**	1	2/21/2020 04:33 AM
Benzo(g,h,i)perylene	**48**		**5.3**	**µg/Kg-dry**	1	2/21/2020 04:33 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-9R 0-1 **Lab ID:** 20021144-32
Collection Date: 2/17/2020 12:50 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**73**		**5.3**	**µg/Kg-dry**	1	2/21/2020 04:33 AM
Chrysene	**260**		**5.3**	**µg/Kg-dry**	1	2/21/2020 04:33 AM
Dibenzo(a,h)anthracene	**11**		**5.3**	**µg/Kg-dry**	1	2/21/2020 04:33 AM
Fluoranthene	**990**		**5.3**	**µg/Kg-dry**	1	2/21/2020 04:33 AM
Fluorene	**1,300**		**5.3**	**µg/Kg-dry**	1	2/21/2020 04:33 AM
Indeno(1,2,3-cd)pyrene	**64**		**5.3**	**µg/Kg-dry**	1	2/21/2020 04:33 AM
Naphthalene	**4,500**		**5.3**	**µg/Kg-dry**	1	2/21/2020 04:33 AM
Phenanthrene	**3,100**		**5.3**	**µg/Kg-dry**	1	2/21/2020 04:33 AM
Pyrene	**900**		**5.3**	**µg/Kg-dry**	1	2/21/2020 04:33 AM
Surr: 2-Fluorobiphenyl	*94.0*		*20-140*	*%REC*	1	2/21/2020 04:33 AM
Surr: 4-Terphenyl-d14	*92.3*		*22-172*	*%REC*	1	2/21/2020 04:33 AM
Surr: Nitrobenzene-d5	*116*		*28-140*	*%REC*	1	2/21/2020 04:33 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/18/20 14:08		Analyst: **BG**
1,1,1,2-Tetrachloroethane	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
1,1,1-Trichloroethane	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
1,1,2,2-Tetrachloroethane	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
1,1,2-Trichloroethane	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
1,1,2-Trichlorotrifluoroethane	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
1,1-Dichloroethane	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
1,1-Dichloroethene	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
1,2,3-Trichloropropane	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
1,2,4-Trichlorobenzene	ND		140	µg/Kg-dry	1	2/21/2020 09:06 AM
1,2,4-Trimethylbenzene	**180**		**43**	**µg/Kg-dry**	1	2/21/2020 09:06 AM
1,2-Dibromo-3-chloropropane	ND		140	µg/Kg-dry	1	2/21/2020 09:06 AM
1,2-Dibromoethane	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
1,2-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
1,2-Dichloroethane	ND		140	µg/Kg-dry	1	2/21/2020 09:06 AM
1,2-Dichloropropane	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
1,3,5-Trimethylbenzene	ND		140	µg/Kg-dry	1	2/21/2020 09:06 AM
1,3-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
1,4-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
2-Butanone	ND		290	µg/Kg-dry	1	2/21/2020 09:06 AM
2-Hexanone	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
2-Methylnaphthalene	**4,000**		**720**	**µg/Kg-dry**	5	2/21/2020 03:16 PM
4-Methyl-2-pentanone	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
Acetone	ND		140	µg/Kg-dry	1	2/21/2020 09:06 AM
Acrylonitrile	ND		140	µg/Kg-dry	1	2/21/2020 09:06 AM
Benzene	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
Bromochloromethane	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
Bromodichloromethane	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-9R 0-1 **Lab ID:** 20021144-32
Collection Date: 2/17/2020 12:50 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
Bromomethane	ND		140	µg/Kg-dry	1	2/21/2020 09:06 AM
Carbon disulfide	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
Carbon tetrachloride	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
Chlorobenzene	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
Chloroethane	ND		140	µg/Kg-dry	1	2/21/2020 09:06 AM
Chloroform	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
Chloromethane	ND		140	µg/Kg-dry	1	2/21/2020 09:06 AM
cis-1,2-Dichloroethene	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
cis-1,3-Dichloropropene	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
Dibromochloromethane	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
Dibromomethane	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
Dichlorodifluoromethane	ND		140	µg/Kg-dry	1	2/21/2020 09:06 AM
Diethyl ether	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
Ethylbenzene	**68**		**43**	**µg/Kg-dry**	1	2/21/2020 09:06 AM
Hexachloroethane	ND		140	µg/Kg-dry	1	2/21/2020 09:06 AM
Isopropylbenzene	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
m,p-Xylene	**95**		**86**	**µg/Kg-dry**	1	2/21/2020 09:06 AM
Methyl iodide	ND		720	µg/Kg-dry	1	2/21/2020 09:06 AM
Methyl tert-butyl ether	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
Methylene chloride	ND		360	µg/Kg-dry	1	2/21/2020 09:06 AM
Naphthalene	**9,600**		**720**	**µg/Kg-dry**	5	2/21/2020 03:16 PM
n-Propylbenzene	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
o-Xylene	**49**		**43**	**µg/Kg-dry**	1	2/21/2020 09:06 AM
Styrene	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
Tetrachloroethene	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
Toluene	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
trans-1,2-Dichloroethene	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
trans-1,3-Dichloropropene	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
trans-1,4-Dichloro-2-butene	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
Trichloroethene	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
Trichlorofluoromethane	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
Vinyl acetate	ND		360	µg/Kg-dry	1	2/21/2020 09:06 AM
Vinyl chloride	ND		43	µg/Kg-dry	1	2/21/2020 09:06 AM
Xylenes, Total	**140**		**130**	**µg/Kg-dry**	1	2/21/2020 09:06 AM
Surr: 1,2-Dichloroethane-d4	*95.1*		*70-130*	*%REC*	1	2/21/2020 09:06 AM
Surr: 1,2-Dichloroethane-d4	*108*		*70-130*	*%REC*	5	2/21/2020 03:16 PM
Surr: 4-Bromofluorobenzene	*97.4*		*70-130*	*%REC*	1	2/21/2020 09:06 AM
Surr: 4-Bromofluorobenzene	*101*		*70-130*	*%REC*	5	2/21/2020 03:16 PM
Surr: Dibromofluoromethane	*97.8*		*70-130*	*%REC*	5	2/21/2020 03:16 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021144
Sample ID: S-9R 0-1
Lab ID: 20021144-32
Collection Date: 2/17/2020 12:50 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Dibromofluoromethane	*92.8*		*70-130*	*%REC*	1	2/21/2020 09:06 AM
Surr: Toluene-d8	*104*		*70-130*	*%REC*	5	2/21/2020 03:16 PM
Surr: Toluene-d8	*96.6*		*70-130*	*%REC*	1	2/21/2020 09:06 AM
BIOCHEMICAL OXYGEN DEMAND			**A5210B-11**		Prep: A5210B 2/18/20 17:45	Analyst: **QTN**
Biochemical Oxygen Demand	**0.068**		**0.025**	**mg/Kg-dry**	1	2/23/2020 01:05 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**21**		**0.10**	**% of sample**	1	2/19/2020 02:31 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/19/20 11:33	Analyst: **JZB**
Phosphorus, Total	**460**		**280**	**mg/Kg-dry**	10	2/21/2020 01:05 PM
PH			**SW9045D**		Prep: EXTRACT 2/18/20 15:00	Analyst: **DNW**
pH	**8.53**		**0.100**	**s.u.**	1	2/19/2020 09:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021144
Sample ID: S-9R 1-2
Lab ID: 20021144-33
Collection Date: 2/17/2020 12:55 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/21/20 16:57		Analyst: **RM**
Aroclor 1016	ND		78	µg/Kg-dry	1	2/24/2020 01:55 PM
Aroclor 1221	ND		78	µg/Kg-dry	1	2/24/2020 01:55 PM
Aroclor 1232	ND		78	µg/Kg-dry	1	2/24/2020 01:55 PM
Aroclor 1242	ND		78	µg/Kg-dry	1	2/24/2020 01:55 PM
Aroclor 1248	ND		78	µg/Kg-dry	1	2/24/2020 01:55 PM
Aroclor 1254	ND		78	µg/Kg-dry	1	2/24/2020 01:55 PM
Aroclor 1260	ND		78	µg/Kg-dry	1	2/24/2020 01:55 PM
Aroclor 1262	ND		78	µg/Kg-dry	1	2/24/2020 01:55 PM
Aroclor 1268	ND		78	µg/Kg-dry	1	2/24/2020 01:55 PM
Surr: Decachlorobiphenyl	*46.7*		*40-140*	*%REC*	1	2/24/2020 01:55 PM
Surr: Tetrachloro-m-xylene	*65.0*		*45-124*	*%REC*	1	2/24/2020 01:55 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/21/20 16:19		Analyst: **RSH**
Mercury	**0.042**		**0.020**	**mg/Kg-dry**	1	2/24/2020 03:55 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/20/20 14:50		Analyst: **STP**
Arsenic	**7.2**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:07 PM
Barium	**67**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:07 PM
Cadmium	ND		0.15	mg/Kg-dry	1	2/20/2020 08:07 PM
Chromium	**15**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:07 PM
Copper	**27**		**3.9**	**mg/Kg-dry**	10	2/21/2020 05:17 PM
Lead	**15**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:07 PM
Nickel	**27**		**3.9**	**mg/Kg-dry**	10	2/21/2020 05:17 PM
Selenium	ND		0.39	mg/Kg-dry	1	2/20/2020 08:07 PM
Silver	ND		0.39	mg/Kg-dry	1	2/20/2020 08:07 PM
Thorium	**4.3**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:07 PM
Uranium	**1.8**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:07 PM
Zinc	**77**		**0.77**	**mg/Kg-dry**	1	2/20/2020 08:07 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/20/20 09:31		Analyst: **EEW**
1-Methylnaphthalene	**7,000**		**12**	**µg/Kg-dry**	1	2/21/2020 04:48 AM
2-Chloronaphthalene	ND		12	µg/Kg-dry	1	2/21/2020 04:48 AM
2-Methylnaphthalene	**13,000**		**12**	**µg/Kg-dry**	1	2/21/2020 04:48 AM
Acenaphthene	**9,700**		**12**	**µg/Kg-dry**	1	2/21/2020 04:48 AM
Acenaphthylene	**450**		**12**	**µg/Kg-dry**	1	2/21/2020 04:48 AM
Anthracene	**5,800**		**12**	**µg/Kg-dry**	1	2/21/2020 04:48 AM
Benzo(a)anthracene	**3,200**		**12**	**µg/Kg-dry**	1	2/21/2020 04:48 AM
Benzo(a)pyrene	**1,800**		**12**	**µg/Kg-dry**	1	2/21/2020 04:48 AM
Benzo(b)fluoranthene	**1,800**		**12**	**µg/Kg-dry**	1	2/21/2020 04:48 AM
Benzo(g,h,i)perylene	**490**		**12**	**µg/Kg-dry**	1	2/21/2020 04:48 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-9R 1-2 **Lab ID:** 20021144-33
Collection Date: 2/17/2020 12:55 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**640**		**12**	**µg/Kg-dry**	1	2/21/2020 04:48 AM
Chrysene	**2,400**		**12**	**µg/Kg-dry**	1	2/21/2020 04:48 AM
Dibenzo(a,h)anthracene	**120**		**12**	**µg/Kg-dry**	1	2/21/2020 04:48 AM
Fluoranthene	**7,800**		**12**	**µg/Kg-dry**	1	2/21/2020 04:48 AM
Fluorene	**7,800**		**12**	**µg/Kg-dry**	1	2/21/2020 04:48 AM
Indeno(1,2,3-cd)pyrene	**690**		**12**	**µg/Kg-dry**	1	2/21/2020 04:48 AM
Naphthalene	**23,000**		**61**	**µg/Kg-dry**	5	2/21/2020 02:53 PM
Phenanthrene	**22,000**		**61**	**µg/Kg-dry**	5	2/21/2020 02:53 PM
Pyrene	**7,900**		**12**	**µg/Kg-dry**	1	2/21/2020 04:48 AM
Surr: 2-Fluorobiphenyl	*97.6*		*20-140*	*%REC*	1	2/21/2020 04:48 AM
Surr: 4-Terphenyl-d14	*94.0*		*22-172*	*%REC*	1	2/21/2020 04:48 AM
Surr: Nitrobenzene-d5	*123*		*28-140*	*%REC*	1	2/21/2020 04:48 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/18/20 14:08		Analyst: **JNS**
1,1,1,2-Tetrachloroethane	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
1,1,1-Trichloroethane	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
1,1,2,2-Tetrachloroethane	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
1,1,2-Trichloroethane	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
1,1,2-Trichlorotrifluoroethane	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
1,1-Dichloroethane	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
1,1-Dichloroethene	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
1,2,3-Trichloropropane	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
1,2,4-Trichlorobenzene	ND		130	µg/Kg-dry	1	2/22/2020 02:02 AM
1,2,4-Trimethylbenzene	**130**		**40**	**µg/Kg-dry**	1	2/22/2020 02:02 AM
1,2-Dibromo-3-chloropropane	ND		130	µg/Kg-dry	1	2/22/2020 02:02 AM
1,2-Dibromoethane	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
1,2-Dichlorobenzene	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
1,2-Dichloroethane	ND		130	µg/Kg-dry	1	2/22/2020 02:02 AM
1,2-Dichloropropane	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
1,3,5-Trimethylbenzene	ND		130	µg/Kg-dry	1	2/22/2020 02:02 AM
1,3-Dichlorobenzene	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
1,4-Dichlorobenzene	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
2-Butanone	ND		270	µg/Kg-dry	1	2/22/2020 02:02 AM
2-Hexanone	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
2-Methylnaphthalene	**2,300**		**130**	**µg/Kg-dry**	1	2/22/2020 02:02 AM
4-Methyl-2-pentanone	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
Acetone	ND		130	µg/Kg-dry	1	2/22/2020 02:02 AM
Acrylonitrile	ND		130	µg/Kg-dry	1	2/22/2020 02:02 AM
Benzene	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
Bromochloromethane	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
Bromodichloromethane	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-9R 1-2 **Lab ID:** 20021144-33
Collection Date: 2/17/2020 12:55 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
Bromomethane	ND		130	µg/Kg-dry	1	2/22/2020 02:02 AM
Carbon disulfide	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
Carbon tetrachloride	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
Chlorobenzene	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
Chloroethane	ND		130	µg/Kg-dry	1	2/22/2020 02:02 AM
Chloroform	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
Chloromethane	ND		130	µg/Kg-dry	1	2/22/2020 02:02 AM
cis-1,2-Dichloroethene	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
cis-1,3-Dichloropropene	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
Dibromochloromethane	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
Dibromomethane	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
Dichlorodifluoromethane	ND		130	µg/Kg-dry	1	2/22/2020 02:02 AM
Diethyl ether	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
Ethylbenzene	**48**		**40**	**µg/Kg-dry**	1	2/22/2020 02:02 AM
Hexachloroethane	ND		130	µg/Kg-dry	1	2/22/2020 02:02 AM
Isopropylbenzene	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
m,p-Xylene	ND		81	µg/Kg-dry	1	2/22/2020 02:02 AM
Methyl iodide	ND		670	µg/Kg-dry	1	2/22/2020 02:02 AM
Methyl tert-butyl ether	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
Methylene chloride	ND		340	µg/Kg-dry	1	2/22/2020 02:02 AM
Naphthalene	**6,300**		**130**	**µg/Kg-dry**	1	2/22/2020 02:02 AM
n-Propylbenzene	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
o-Xylene	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
Styrene	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
Tetrachloroethene	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
Toluene	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
trans-1,2-Dichloroethene	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
trans-1,3-Dichloropropene	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
trans-1,4-Dichloro-2-butene	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
Trichloroethene	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
Trichlorofluoromethane	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
Vinyl acetate	ND		340	µg/Kg-dry	1	2/22/2020 02:02 AM
Vinyl chloride	ND		40	µg/Kg-dry	1	2/22/2020 02:02 AM
Xylenes, Total	ND		120	µg/Kg-dry	1	2/22/2020 02:02 AM
Surr: 1,2-Dichloroethane-d4	*106*		*70-130*	*%REC*	1	2/22/2020 02:02 AM
Surr: 4-Bromofluorobenzene	*94.9*		*70-130*	*%REC*	1	2/22/2020 02:02 AM
Surr: Dibromofluoromethane	*96.3*		*70-130*	*%REC*	1	2/22/2020 02:02 AM
Surr: Toluene-d8	*107*		*70-130*	*%REC*	1	2/22/2020 02:02 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/18/20 17:45 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021144
Sample ID: S-9R 1-2
Lab ID: 20021144-33
Collection Date: 2/17/2020 12:55 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor		Date Analyzed
Biochemical Oxygen Demand	**0.028**		**0.024**	**mg/Kg-dry**	1		2/23/2020 01:05 PM
MOISTURE			**SW3550C**				Analyst: **KTP**
Moisture	**18**		**0.10**	**% of sample**	1		2/19/2020 02:31 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0	2/19/20 11:33	Analyst: **JZB**
Phosphorus, Total	**370**		**120**	**mg/Kg-dry**	4		2/21/2020 12:01 PM
PH			**SW9045D**		Prep: EXTRACT	2/18/20 15:00	Analyst: **DNW**
pH	**8.53**		**0.100**	**s.u.**	1		2/19/2020 09:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-9R 2-3
Collection Date: 2/17/2020 01:00 PM

Work Order: 20021144
Lab ID: 20021144-34
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/21/20 16:57		Analyst: **RM**
Aroclor 1016	ND		82	µg/Kg-dry	1	2/24/2020 02:10 PM
Aroclor 1221	ND		82	µg/Kg-dry	1	2/24/2020 02:10 PM
Aroclor 1232	ND		82	µg/Kg-dry	1	2/24/2020 02:10 PM
Aroclor 1242	ND		82	µg/Kg-dry	1	2/24/2020 02:10 PM
Aroclor 1248	ND		82	µg/Kg-dry	1	2/24/2020 02:10 PM
Aroclor 1254	ND		82	µg/Kg-dry	1	2/24/2020 02:10 PM
Aroclor 1260	ND		82	µg/Kg-dry	1	2/24/2020 02:10 PM
Aroclor 1262	ND		82	µg/Kg-dry	1	2/24/2020 02:10 PM
Aroclor 1268	ND		82	µg/Kg-dry	1	2/24/2020 02:10 PM
Surr: Decachlorobiphenyl	*56.5*		*40-140*	*%REC*	1	2/24/2020 02:10 PM
Surr: Tetrachloro-m-xylene	*68.0*		*45-124*	*%REC*	1	2/24/2020 02:10 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/21/20 16:19		Analyst: **RSH**
Mercury	**0.023**		**0.021**	**mg/Kg-dry**	1	2/24/2020 03:57 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/20/20 14:50		Analyst: **STP**
Arsenic	**5.4**		**0.46**	**mg/Kg-dry**	1	2/20/2020 08:09 PM
Barium	**67**		**0.46**	**mg/Kg-dry**	1	2/20/2020 08:09 PM
Cadmium	ND		0.19	mg/Kg-dry	1	2/20/2020 08:09 PM
Chromium	**14**		**0.46**	**mg/Kg-dry**	1	2/20/2020 08:09 PM
Copper	**39**		**4.6**	**mg/Kg-dry**	10	2/21/2020 05:19 PM
Lead	**17**		**0.46**	**mg/Kg-dry**	1	2/20/2020 08:09 PM
Nickel	**21**		**4.6**	**mg/Kg-dry**	10	2/21/2020 05:19 PM
Selenium	ND		0.46	mg/Kg-dry	1	2/20/2020 08:09 PM
Silver	ND		0.46	mg/Kg-dry	1	2/20/2020 08:09 PM
Thorium	**3.5**		**0.46**	**mg/Kg-dry**	1	2/20/2020 08:09 PM
Uranium	**1.4**		**0.46**	**mg/Kg-dry**	1	2/20/2020 08:09 PM
Zinc	**84**		**0.93**	**mg/Kg-dry**	1	2/20/2020 08:09 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/22/20 17:00		Analyst: **EEW**
1-Methylnaphthalene	**1,900**		**5.1**	**µg/Kg-dry**	1	2/24/2020 01:53 PM
2-Chloronaphthalene	ND		5.1	µg/Kg-dry	1	2/24/2020 01:53 PM
2-Methylnaphthalene	**3,600**		**5.1**	**µg/Kg-dry**	1	2/24/2020 01:53 PM
Acenaphthene	**2,800**		**5.1**	**µg/Kg-dry**	1	2/24/2020 01:53 PM
Acenaphthylene	**130**		**5.1**	**µg/Kg-dry**	1	2/24/2020 01:53 PM
Anthracene	**1,700**		**5.1**	**µg/Kg-dry**	1	2/24/2020 01:53 PM
Benzo(a)anthracene	**800**		**5.1**	**µg/Kg-dry**	1	2/24/2020 01:53 PM
Benzo(a)pyrene	**460**		**5.1**	**µg/Kg-dry**	1	2/24/2020 01:53 PM
Benzo(b)fluoranthene	**470**		**5.1**	**µg/Kg-dry**	1	2/24/2020 01:53 PM
Benzo(g,h,i)perylene	**130**		**5.1**	**µg/Kg-dry**	1	2/24/2020 01:53 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-9R 2-3 **Lab ID:** 20021144-34
Collection Date: 2/17/2020 01:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**190**		**5.1**	**µg/Kg-dry**	1	2/24/2020 01:53 PM
Chrysene	**640**		**5.1**	**µg/Kg-dry**	1	2/24/2020 01:53 PM
Dibenzo(a,h)anthracene	**30**		**5.1**	**µg/Kg-dry**	1	2/24/2020 01:53 PM
Fluoranthene	**2,200**		**5.1**	**µg/Kg-dry**	1	2/24/2020 01:53 PM
Fluorene	**2,100**		**5.1**	**µg/Kg-dry**	1	2/24/2020 01:53 PM
Indeno(1,2,3-cd)pyrene	**180**		**5.1**	**µg/Kg-dry**	1	2/24/2020 01:53 PM
Naphthalene	**7,200**		**5.1**	**µg/Kg-dry**	1	2/24/2020 01:53 PM
Phenanthrene	**6,100**		**5.1**	**µg/Kg-dry**	1	2/24/2020 01:53 PM
Pyrene	**2,200**		**5.1**	**µg/Kg-dry**	1	2/24/2020 01:53 PM
Surr: 2-Fluorobiphenyl	*87.8*		*20-140*	*%REC*	1	2/24/2020 01:53 PM
Surr: 4-Terphenyl-d14	*94.3*		*22-172*	*%REC*	1	2/24/2020 01:53 PM
Surr: Nitrobenzene-d5	*114*		*28-140*	*%REC*	1	2/24/2020 01:53 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/18/20 14:08		Analyst: **JNS**
1,1,1,2-Tetrachloroethane	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
1,1,1-Trichloroethane	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
1,1,2,2-Tetrachloroethane	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
1,1,2-Trichloroethane	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
1,1,2-Trichlorotrifluoroethane	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
1,1-Dichloroethane	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
1,1-Dichloroethene	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
1,2,3-Trichloropropane	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
1,2,4-Trichlorobenzene	ND		160	µg/Kg-dry	1	2/22/2020 02:24 AM
1,2,4-Trimethylbenzene	**130**		**47**	**µg/Kg-dry**	1	2/22/2020 02:24 AM
1,2-Dibromo-3-chloropropane	ND		160	µg/Kg-dry	1	2/22/2020 02:24 AM
1,2-Dibromoethane	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
1,2-Dichlorobenzene	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
1,2-Dichloroethane	ND		160	µg/Kg-dry	1	2/22/2020 02:24 AM
1,2-Dichloropropane	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
1,3,5-Trimethylbenzene	ND		160	µg/Kg-dry	1	2/22/2020 02:24 AM
1,3-Dichlorobenzene	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
1,4-Dichlorobenzene	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
2-Butanone	ND		320	µg/Kg-dry	1	2/22/2020 02:24 AM
2-Hexanone	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
2-Methylnaphthalene	**2,800**		**160**	**µg/Kg-dry**	1	2/22/2020 02:24 AM
4-Methyl-2-pentanone	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
Acetone	ND		160	µg/Kg-dry	1	2/22/2020 02:24 AM
Acrylonitrile	ND		160	µg/Kg-dry	1	2/22/2020 02:24 AM
Benzene	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
Bromochloromethane	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
Bromodichloromethane	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-9R 2-3
Collection Date: 2/17/2020 01:00 PM

Work Order: 20021144
Lab ID: 20021144-34
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
Bromomethane	ND		160	µg/Kg-dry	1	2/22/2020 02:24 AM
Carbon disulfide	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
Carbon tetrachloride	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
Chlorobenzene	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
Chloroethane	ND		160	µg/Kg-dry	1	2/22/2020 02:24 AM
Chloroform	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
Chloromethane	ND		160	µg/Kg-dry	1	2/22/2020 02:24 AM
cis-1,2-Dichloroethene	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
cis-1,3-Dichloropropene	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
Dibromochloromethane	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
Dibromomethane	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
Dichlorodifluoromethane	ND		160	µg/Kg-dry	1	2/22/2020 02:24 AM
Diethyl ether	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
Ethylbenzene	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
Hexachloroethane	ND		160	µg/Kg-dry	1	2/22/2020 02:24 AM
Isopropylbenzene	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
m,p-Xylene	ND		95	µg/Kg-dry	1	2/22/2020 02:24 AM
Methyl iodide	ND		790	µg/Kg-dry	1	2/22/2020 02:24 AM
Methyl tert-butyl ether	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
Methylene chloride	ND		390	µg/Kg-dry	1	2/22/2020 02:24 AM
Naphthalene	**6,700**		**160**	**µg/Kg-dry**	1	2/22/2020 02:24 AM
n-Propylbenzene	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
o-Xylene	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
Styrene	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
Tetrachloroethene	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
Toluene	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
trans-1,2-Dichloroethene	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
trans-1,3-Dichloropropene	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
trans-1,4-Dichloro-2-butene	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
Trichloroethene	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
Trichlorofluoromethane	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
Vinyl acetate	ND		390	µg/Kg-dry	1	2/22/2020 02:24 AM
Vinyl chloride	ND		47	µg/Kg-dry	1	2/22/2020 02:24 AM
Xylenes, Total	ND		140	µg/Kg-dry	1	2/22/2020 02:24 AM
Surr: 1,2-Dichloroethane-d4	*106*		*70-130*	*%REC*	1	2/22/2020 02:24 AM
Surr: 4-Bromofluorobenzene	*94.3*		*70-130*	*%REC*	1	2/22/2020 02:24 AM
Surr: Dibromofluoromethane	*97.8*		*70-130*	*%REC*	1	2/22/2020 02:24 AM
Surr: Toluene-d8	*106*		*70-130*	*%REC*	1	2/22/2020 02:24 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/18/20 17:45 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021144
Sample ID: S-9R 2-3
Lab ID: 20021144-34
Collection Date: 2/17/2020 01:00 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**0.24**		**0.025**	**mg/Kg-dry**	1	2/23/2020 01:05 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**19**		**0.10**	**% of sample**	1	2/19/2020 02:31 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/19/20 11:33	Analyst: **JZB**
Phosphorus, Total	**420**		**120**	**mg/Kg-dry**	4	2/21/2020 12:02 PM
PH			**SW9045D**		Prep: EXTRACT 2/18/20 15:00	Analyst: **DNW**
pH	**8.41**		**0.100**	**s.u.**	1	2/19/2020 09:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-9R 3-4 **Lab ID:** 20021144-35
Collection Date: 2/17/2020 01:05 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/21/20 16:57		Analyst: **RM**
Aroclor 1016	ND		80	µg/Kg-dry	1	2/24/2020 02:25 PM
Aroclor 1221	ND		80	µg/Kg-dry	1	2/24/2020 02:25 PM
Aroclor 1232	ND		80	µg/Kg-dry	1	2/24/2020 02:25 PM
Aroclor 1242	ND		80	µg/Kg-dry	1	2/24/2020 02:25 PM
Aroclor 1248	ND		80	µg/Kg-dry	1	2/24/2020 02:25 PM
Aroclor 1254	ND		80	µg/Kg-dry	1	2/24/2020 02:25 PM
Aroclor 1260	ND		80	µg/Kg-dry	1	2/24/2020 02:25 PM
Aroclor 1262	ND		80	µg/Kg-dry	1	2/24/2020 02:25 PM
Aroclor 1268	ND		80	µg/Kg-dry	1	2/24/2020 02:25 PM
Surr: Decachlorobiphenyl	*54.1*		*40-140*	*%REC*	1	2/24/2020 02:25 PM
Surr: Tetrachloro-m-xylene	*66.9*		*45-124*	*%REC*	1	2/24/2020 02:25 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/21/20 16:19		Analyst: **RSH**
Mercury	**0.024**		**0.022**	**mg/Kg-dry**	1	2/24/2020 03:59 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/20/20 14:50		Analyst: **STP**
Arsenic	**6.5**		**0.51**	**mg/Kg-dry**	1	2/20/2020 08:11 PM
Barium	**110**		**0.51**	**mg/Kg-dry**	1	2/20/2020 08:11 PM
Cadmium	ND		0.20	mg/Kg-dry	1	2/20/2020 08:11 PM
Chromium	**24**		**0.51**	**mg/Kg-dry**	1	2/20/2020 08:11 PM
Copper	**33**		**5.1**	**mg/Kg-dry**	10	2/21/2020 05:20 PM
Lead	**810**		**5.1**	**mg/Kg-dry**	10	2/21/2020 05:20 PM
Nickel	**30**		**5.1**	**mg/Kg-dry**	10	2/21/2020 05:20 PM
Selenium	ND		0.51	mg/Kg-dry	1	2/20/2020 08:11 PM
Silver	ND		0.51	mg/Kg-dry	1	2/20/2020 08:11 PM
Thorium	**4.4**		**0.51**	**mg/Kg-dry**	1	2/20/2020 08:11 PM
Uranium	**1.6**		**0.51**	**mg/Kg-dry**	1	2/20/2020 08:11 PM
Zinc	**78**		**1.0**	**mg/Kg-dry**	1	2/20/2020 08:11 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/22/20 17:00		Analyst: **EEW**
1-Methylnaphthalene	**890**		**5.0**	**µg/Kg-dry**	1	2/24/2020 02:09 PM
2-Chloronaphthalene	ND		5.0	µg/Kg-dry	1	2/24/2020 02:09 PM
2-Methylnaphthalene	**1,600**		**5.0**	**µg/Kg-dry**	1	2/24/2020 02:09 PM
Acenaphthene	**1,500**		**5.0**	**µg/Kg-dry**	1	2/24/2020 02:09 PM
Acenaphthylene	**53**		**5.0**	**µg/Kg-dry**	1	2/24/2020 02:09 PM
Anthracene	**690**		**5.0**	**µg/Kg-dry**	1	2/24/2020 02:09 PM
Benzo(a)anthracene	**310**		**5.0**	**µg/Kg-dry**	1	2/24/2020 02:09 PM
Benzo(a)pyrene	**160**		**5.0**	**µg/Kg-dry**	1	2/24/2020 02:09 PM
Benzo(b)fluoranthene	**180**		**5.0**	**µg/Kg-dry**	1	2/24/2020 02:09 PM
Benzo(g,h,i)perylene	**49**		**5.0**	**µg/Kg-dry**	1	2/24/2020 02:09 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-9R 3-4 **Lab ID:** 20021144-35
Collection Date: 2/17/2020 01:05 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**69**		**5.0**	**µg/Kg-dry**	1	2/24/2020 02:09 PM
Chrysene	**240**		**5.0**	**µg/Kg-dry**	1	2/24/2020 02:09 PM
Dibenzo(a,h)anthracene	**16**		**5.0**	**µg/Kg-dry**	1	2/24/2020 02:09 PM
Fluoranthene	**1,000**		**5.0**	**µg/Kg-dry**	1	2/24/2020 02:09 PM
Fluorene	**1,100**		**5.0**	**µg/Kg-dry**	1	2/24/2020 02:09 PM
Indeno(1,2,3-cd)pyrene	**69**		**5.0**	**µg/Kg-dry**	1	2/24/2020 02:09 PM
Naphthalene	**4,100**		**5.0**	**µg/Kg-dry**	1	2/24/2020 02:09 PM
Phenanthrene	**2,800**		**5.0**	**µg/Kg-dry**	1	2/24/2020 02:09 PM
Pyrene	**970**		**5.0**	**µg/Kg-dry**	1	2/24/2020 02:09 PM
Surr: 2-Fluorobiphenyl	*84.9*		*20-140*	*%REC*	1	2/24/2020 02:09 PM
Surr: 4-Terphenyl-d14	*92.9*		*22-172*	*%REC*	1	2/24/2020 02:09 PM
Surr: Nitrobenzene-d5	*109*		*28-140*	*%REC*	1	2/24/2020 02:09 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/18/20 14:08		Analyst: **JNS**
1,1,1,2-Tetrachloroethane	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
1,1,1-Trichloroethane	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
1,1,2,2-Tetrachloroethane	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
1,1,2-Trichloroethane	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
1,1,2-Trichlorotrifluoroethane	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
1,1-Dichloroethane	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
1,1-Dichloroethene	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
1,2,3-Trichloropropane	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
1,2,4-Trichlorobenzene	ND		160	µg/Kg-dry	1	2/22/2020 02:46 AM
1,2,4-Trimethylbenzene	**150**		**49**	**µg/Kg-dry**	1	2/22/2020 02:46 AM
1,2-Dibromo-3-chloropropane	ND		160	µg/Kg-dry	1	2/22/2020 02:46 AM
1,2-Dibromoethane	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
1,2-Dichlorobenzene	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
1,2-Dichloroethane	ND		160	µg/Kg-dry	1	2/22/2020 02:46 AM
1,2-Dichloropropane	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
1,3,5-Trimethylbenzene	ND		160	µg/Kg-dry	1	2/22/2020 02:46 AM
1,3-Dichlorobenzene	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
1,4-Dichlorobenzene	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
2-Butanone	ND		320	µg/Kg-dry	1	2/22/2020 02:46 AM
2-Hexanone	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
2-Methylnaphthalene	**3,300**		**160**	**µg/Kg-dry**	1	2/22/2020 02:46 AM
4-Methyl-2-pentanone	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
Acetone	ND		160	µg/Kg-dry	1	2/22/2020 02:46 AM
Acrylonitrile	ND		160	µg/Kg-dry	1	2/22/2020 02:46 AM
Benzene	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
Bromochloromethane	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
Bromodichloromethane	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-9R 3-4 **Lab ID:** 20021144-35
Collection Date: 2/17/2020 01:05 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
Bromomethane	ND		160	µg/Kg-dry	1	2/22/2020 02:46 AM
Carbon disulfide	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
Carbon tetrachloride	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
Chlorobenzene	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
Chloroethane	ND		160	µg/Kg-dry	1	2/22/2020 02:46 AM
Chloroform	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
Chloromethane	ND		160	µg/Kg-dry	1	2/22/2020 02:46 AM
cis-1,2-Dichloroethene	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
cis-1,3-Dichloropropene	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
Dibromochloromethane	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
Dibromomethane	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
Dichlorodifluoromethane	ND		160	µg/Kg-dry	1	2/22/2020 02:46 AM
Diethyl ether	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
Ethylbenzene	**50**		**49**	**µg/Kg-dry**	1	2/22/2020 02:46 AM
Hexachloroethane	ND		160	µg/Kg-dry	1	2/22/2020 02:46 AM
Isopropylbenzene	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
m,p-Xylene	ND		97	µg/Kg-dry	1	2/22/2020 02:46 AM
Methyl iodide	ND		810	µg/Kg-dry	1	2/22/2020 02:46 AM
Methyl tert-butyl ether	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
Methylene chloride	ND		400	µg/Kg-dry	1	2/22/2020 02:46 AM
Naphthalene	**6,700**		**160**	**µg/Kg-dry**	1	2/22/2020 02:46 AM
n-Propylbenzene	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
o-Xylene	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
Styrene	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
Tetrachloroethene	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
Toluene	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
trans-1,2-Dichloroethene	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
trans-1,3-Dichloropropene	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
trans-1,4-Dichloro-2-butene	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
Trichloroethene	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
Trichlorofluoromethane	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
Vinyl acetate	ND		400	µg/Kg-dry	1	2/22/2020 02:46 AM
Vinyl chloride	ND		49	µg/Kg-dry	1	2/22/2020 02:46 AM
Xylenes, Total	ND		150	µg/Kg-dry	1	2/22/2020 02:46 AM
Surr: 1,2-Dichloroethane-d4	*107*		*70-130*	*%REC*	1	2/22/2020 02:46 AM
Surr: 4-Bromofluorobenzene	*94.2*		*70-130*	*%REC*	1	2/22/2020 02:46 AM
Surr: Dibromofluoromethane	*96.2*		*70-130*	*%REC*	1	2/22/2020 02:46 AM
Surr: Toluene-d8	*107*		*70-130*	*%REC*	1	2/22/2020 02:46 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/18/20 18:17 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021144
Sample ID: S-9R 3-4
Lab ID: 20021144-35
Collection Date: 2/17/2020 01:05 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**0.10**		**0.025**	**mg/Kg-dry**	1	2/23/2020 01:05 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**19**		**0.10**	**% of sample**	1	2/19/2020 02:31 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/19/20 11:33	Analyst: **JZB**
Phosphorus, Total	**390**		**130**	**mg/Kg-dry**	4	2/21/2020 12:03 PM
PH			**SW9045D**		Prep: EXTRACT 2/18/20 15:00	Analyst: **DNW**
pH	**8.45**		**0.100**	**s.u.**	1	2/19/2020 09:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-9R 4-5
Collection Date: 2/17/2020 01:10 PM

Work Order: 20021144
Lab ID: 20021144-36
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/21/20 16:57		Analyst: **RM**
Aroclor 1016	ND		78	µg/Kg-dry	1	2/24/2020 03:11 PM
Aroclor 1221	ND		78	µg/Kg-dry	1	2/24/2020 03:11 PM
Aroclor 1232	ND		78	µg/Kg-dry	1	2/24/2020 03:11 PM
Aroclor 1242	ND		78	µg/Kg-dry	1	2/24/2020 03:11 PM
Aroclor 1248	ND		78	µg/Kg-dry	1	2/24/2020 03:11 PM
Aroclor 1254	ND		78	µg/Kg-dry	1	2/24/2020 03:11 PM
Aroclor 1260	ND		78	µg/Kg-dry	1	2/24/2020 03:11 PM
Aroclor 1262	ND		78	µg/Kg-dry	1	2/24/2020 03:11 PM
Aroclor 1268	ND		78	µg/Kg-dry	1	2/24/2020 03:11 PM
Surr: Decachlorobiphenyl	*48.3*		*40-140*	*%REC*	1	2/24/2020 03:11 PM
Surr: Tetrachloro-m-xylene	*60.9*		*45-124*	*%REC*	1	2/24/2020 03:11 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/21/20 16:19		Analyst: **RSH**
Mercury	**0.070**		**0.020**	**mg/Kg-dry**	1	2/24/2020 04:01 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/20/20 14:50		Analyst: **STP**
Arsenic	**6.8**		**0.41**	**mg/Kg-dry**	1	2/20/2020 08:13 PM
Barium	**71**		**0.41**	**mg/Kg-dry**	1	2/20/2020 08:13 PM
Cadmium	**0.19**		**0.16**	**mg/Kg-dry**	1	2/20/2020 08:13 PM
Chromium	**17**		**0.41**	**mg/Kg-dry**	1	2/20/2020 08:13 PM
Copper	**40**		**4.1**	**mg/Kg-dry**	10	2/21/2020 05:22 PM
Lead	**49**		**0.41**	**mg/Kg-dry**	1	2/20/2020 08:13 PM
Nickel	**28**		**4.1**	**mg/Kg-dry**	10	2/21/2020 05:22 PM
Selenium	**0.45**		**0.41**	**mg/Kg-dry**	1	2/20/2020 08:13 PM
Silver	ND		0.41	mg/Kg-dry	1	2/20/2020 08:13 PM
Thorium	**4.3**		**0.41**	**mg/Kg-dry**	1	2/20/2020 08:13 PM
Uranium	**2.1**		**0.41**	**mg/Kg-dry**	1	2/20/2020 08:13 PM
Zinc	**87**		**0.82**	**mg/Kg-dry**	1	2/20/2020 08:13 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/22/20 17:00		Analyst: **EEW**
1-Methylnaphthalene	**4,300**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:24 PM
2-Chloronaphthalene	ND		5.1	µg/Kg-dry	1	2/24/2020 02:24 PM
2-Methylnaphthalene	**6,700**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:24 PM
Acenaphthene	**5,800**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:24 PM
Acenaphthylene	**290**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:24 PM
Anthracene	**3,400**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:24 PM
Benzo(a)anthracene	**1,900**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:24 PM
Benzo(a)pyrene	**1,100**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:24 PM
Benzo(b)fluoranthene	**1,100**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:24 PM
Benzo(g,h,i)perylene	**310**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:24 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-9R 4-5 **Lab ID:** 20021144-36
Collection Date: 2/17/2020 01:10 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**440**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:24 PM
Chrysene	**1,400**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:24 PM
Dibenzo(a,h)anthracene	**85**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:24 PM
Fluoranthene	**5,100**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:24 PM
Fluorene	**5,100**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:24 PM
Indeno(1,2,3-cd)pyrene	**470**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:24 PM
Naphthalene	**18,000**		**51**	**µg/Kg-dry**	10	2/25/2020 01:51 PM
Phenanthrene	**15,000**		**51**	**µg/Kg-dry**	10	2/25/2020 01:51 PM
Pyrene	**4,600**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:24 PM
Surr: 2-Fluorobiphenyl	*89.0*		*20-140*	*%REC*	1	2/24/2020 02:24 PM
Surr: 4-Terphenyl-d14	*88.5*		*22-172*	*%REC*	1	2/24/2020 02:24 PM
Surr: Nitrobenzene-d5	*119*		*28-140*	*%REC*	1	2/24/2020 02:24 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/18/20 14:08		Analyst: **JNS**
1,1,1,2-Tetrachloroethane	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
1,1,1-Trichloroethane	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
1,1,2,2-Tetrachloroethane	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
1,1,2-Trichloroethane	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
1,1,2-Trichlorotrifluoroethane	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
1,1-Dichloroethane	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
1,1-Dichloroethene	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
1,2,3-Trichloropropane	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
1,2,4-Trichlorobenzene	ND		180	µg/Kg-dry	1	2/22/2020 03:08 AM
1,2,4-Trimethylbenzene	**150**		**53**	**µg/Kg-dry**	1	2/22/2020 03:08 AM
1,2-Dibromo-3-chloropropane	ND		180	µg/Kg-dry	1	2/22/2020 03:08 AM
1,2-Dibromoethane	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
1,2-Dichlorobenzene	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
1,2-Dichloroethane	ND		180	µg/Kg-dry	1	2/22/2020 03:08 AM
1,2-Dichloropropane	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
1,3,5-Trimethylbenzene	ND		180	µg/Kg-dry	1	2/22/2020 03:08 AM
1,3-Dichlorobenzene	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
1,4-Dichlorobenzene	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
2-Butanone	ND		360	µg/Kg-dry	1	2/22/2020 03:08 AM
2-Hexanone	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
2-Methylnaphthalene	**3,600**		**180**	**µg/Kg-dry**	1	2/22/2020 03:08 AM
4-Methyl-2-pentanone	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
Acetone	ND		180	µg/Kg-dry	1	2/22/2020 03:08 AM
Acrylonitrile	ND		180	µg/Kg-dry	1	2/22/2020 03:08 AM
Benzene	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
Bromochloromethane	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
Bromodichloromethane	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-9R 4-5 **Lab ID:** 20021144-36
Collection Date: 2/17/2020 01:10 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
Bromomethane	ND		180	µg/Kg-dry	1	2/22/2020 03:08 AM
Carbon disulfide	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
Carbon tetrachloride	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
Chlorobenzene	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
Chloroethane	ND		180	µg/Kg-dry	1	2/22/2020 03:08 AM
Chloroform	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
Chloromethane	ND		180	µg/Kg-dry	1	2/22/2020 03:08 AM
cis-1,2-Dichloroethene	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
cis-1,3-Dichloropropene	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
Dibromochloromethane	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
Dibromomethane	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
Dichlorodifluoromethane	ND		180	µg/Kg-dry	1	2/22/2020 03:08 AM
Diethyl ether	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
Ethylbenzene	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
Hexachloroethane	ND		180	µg/Kg-dry	1	2/22/2020 03:08 AM
Isopropylbenzene	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
m,p-Xylene	ND		110	µg/Kg-dry	1	2/22/2020 03:08 AM
Methyl iodide	ND		890	µg/Kg-dry	1	2/22/2020 03:08 AM
Methyl tert-butyl ether	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
Methylene chloride	ND		440	µg/Kg-dry	1	2/22/2020 03:08 AM
Naphthalene	**7,800**		**180**	**µg/Kg-dry**	1	2/22/2020 03:08 AM
n-Propylbenzene	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
o-Xylene	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
Styrene	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
Tetrachloroethene	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
Toluene	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
trans-1,2-Dichloroethene	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
trans-1,3-Dichloropropene	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
trans-1,4-Dichloro-2-butene	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
Trichloroethene	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
Trichlorofluoromethane	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
Vinyl acetate	ND		440	µg/Kg-dry	1	2/22/2020 03:08 AM
Vinyl chloride	ND		53	µg/Kg-dry	1	2/22/2020 03:08 AM
Xylenes, Total	ND		160	µg/Kg-dry	1	2/22/2020 03:08 AM
Surr: 1,2-Dichloroethane-d4	*105*		*70-130*	*%REC*	1	2/22/2020 03:08 AM
Surr: 4-Bromofluorobenzene	*93.4*		*70-130*	*%REC*	1	2/22/2020 03:08 AM
Surr: Dibromofluoromethane	*97.2*		*70-130*	*%REC*	1	2/22/2020 03:08 AM
Surr: Toluene-d8	*106*		*70-130*	*%REC*	1	2/22/2020 03:08 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/18/20 18:24 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021144
Sample ID: S-9R 4-5
Lab ID: 20021144-36
Collection Date: 2/17/2020 01:10 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**0.28**		**0.025**	**mg/Kg-dry**	1	2/23/2020 01:05 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**20**		**0.10**	**% of sample**	1	2/19/2020 02:31 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/19/20 11:33	Analyst: **JZB**
Phosphorus, Total	**310**		**110**	**mg/Kg-dry**	4	2/21/2020 12:04 PM
PH			**SW9045D**		Prep: EXTRACT 2/18/20 15:00	Analyst: **DNW**
pH	**8.40**		**0.100**	**s.u.**	1	2/19/2020 09:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-10R 0-1
Collection Date: 2/17/2020 02:25 PM

Work Order: 20021144
Lab ID: 20021144-37
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/21/20 16:57		Analyst: **RM**
Aroclor 1016	ND		79	µg/Kg-dry	1	2/24/2020 03:27 PM
Aroclor 1221	ND		79	µg/Kg-dry	1	2/24/2020 03:27 PM
Aroclor 1232	ND		79	µg/Kg-dry	1	2/24/2020 03:27 PM
Aroclor 1242	ND		79	µg/Kg-dry	1	2/24/2020 03:27 PM
Aroclor 1248	ND		79	µg/Kg-dry	1	2/24/2020 03:27 PM
Aroclor 1254	ND		79	µg/Kg-dry	1	2/24/2020 03:27 PM
Aroclor 1260	ND		79	µg/Kg-dry	1	2/24/2020 03:27 PM
Aroclor 1262	ND		79	µg/Kg-dry	1	2/24/2020 03:27 PM
Aroclor 1268	ND		79	µg/Kg-dry	1	2/24/2020 03:27 PM
Surr: Decachlorobiphenyl	*45.2*		*40-140*	*%REC*	1	2/24/2020 03:27 PM
Surr: Tetrachloro-m-xylene	*63.1*		*45-124*	*%REC*	1	2/24/2020 03:27 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/21/20 16:19		Analyst: **RSH**
Mercury	**0.054**		**0.025**	**mg/Kg-dry**	1	2/24/2020 04:03 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/20/20 14:50		Analyst: **STP**
Arsenic	**6.0**		**0.43**	**mg/Kg-dry**	1	2/20/2020 08:15 PM
Barium	**70**		**0.43**	**mg/Kg-dry**	1	2/20/2020 08:15 PM
Cadmium	ND		0.17	mg/Kg-dry	1	2/20/2020 08:15 PM
Chromium	**18**		**0.43**	**mg/Kg-dry**	1	2/20/2020 08:15 PM
Copper	**37**		**4.3**	**mg/Kg-dry**	10	2/21/2020 05:24 PM
Lead	**43**		**0.43**	**mg/Kg-dry**	1	2/20/2020 08:15 PM
Nickel	**25**		**4.3**	**mg/Kg-dry**	10	2/21/2020 05:24 PM
Selenium	ND		0.43	mg/Kg-dry	1	2/20/2020 08:15 PM
Silver	ND		0.43	mg/Kg-dry	1	2/20/2020 08:15 PM
Thorium	**4.0**		**0.43**	**mg/Kg-dry**	1	2/20/2020 08:15 PM
Uranium	**1.7**		**0.43**	**mg/Kg-dry**	1	2/20/2020 08:15 PM
Zinc	**55**		**0.86**	**mg/Kg-dry**	1	2/20/2020 08:15 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/22/20 17:00		Analyst: **EEW**
1-Methylnaphthalene	**110**		**5.2**	**µg/Kg-dry**	1	2/24/2020 02:40 PM
2-Chloronaphthalene	ND		5.2	µg/Kg-dry	1	2/24/2020 02:40 PM
2-Methylnaphthalene	**230**		**5.2**	**µg/Kg-dry**	1	2/24/2020 02:40 PM
Acenaphthene	**230**		**5.2**	**µg/Kg-dry**	1	2/24/2020 02:40 PM
Acenaphthylene	**22**		**5.2**	**µg/Kg-dry**	1	2/24/2020 02:40 PM
Anthracene	**210**		**5.2**	**µg/Kg-dry**	1	2/24/2020 02:40 PM
Benzo(a)anthracene	**210**		**5.2**	**µg/Kg-dry**	1	2/24/2020 02:40 PM
Benzo(a)pyrene	**110**		**5.2**	**µg/Kg-dry**	1	2/24/2020 02:40 PM
Benzo(b)fluoranthene	**130**		**5.2**	**µg/Kg-dry**	1	2/24/2020 02:40 PM
Benzo(g,h,i)perylene	**35**		**5.2**	**µg/Kg-dry**	1	2/24/2020 02:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-10R 0-1 **Lab ID:** 20021144-37
Collection Date: 2/17/2020 02:25 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**50**		**5.2**	**µg/Kg-dry**	1	2/24/2020 02:40 PM
Chrysene	**170**		**5.2**	**µg/Kg-dry**	1	2/24/2020 02:40 PM
Dibenzo(a,h)anthracene	**8.1**		**5.2**	**µg/Kg-dry**	1	2/24/2020 02:40 PM
Fluoranthene	**510**		**5.2**	**µg/Kg-dry**	1	2/24/2020 02:40 PM
Fluorene	**220**		**5.2**	**µg/Kg-dry**	1	2/24/2020 02:40 PM
Indeno(1,2,3-cd)pyrene	**50**		**5.2**	**µg/Kg-dry**	1	2/24/2020 02:40 PM
Naphthalene	**470**		**5.2**	**µg/Kg-dry**	1	2/24/2020 02:40 PM
Phenanthrene	**610**		**5.2**	**µg/Kg-dry**	1	2/24/2020 02:40 PM
Pyrene	**470**		**5.2**	**µg/Kg-dry**	1	2/24/2020 02:40 PM
Surr: 2-Fluorobiphenyl	*84.3*		*20-140*	*%REC*	1	2/24/2020 02:40 PM
Surr: 4-Terphenyl-d14	*93.3*		*22-172*	*%REC*	1	2/24/2020 02:40 PM
Surr: Nitrobenzene-d5	*112*		*28-140*	*%REC*	1	2/24/2020 02:40 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/18/20 14:08		Analyst: **JNS**
1,1,1,2-Tetrachloroethane	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
1,1,1-Trichloroethane	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
1,1,2,2-Tetrachloroethane	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
1,1,2-Trichloroethane	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
1,1,2-Trichlorotrifluoroethane	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
1,1-Dichloroethane	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
1,1-Dichloroethene	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
1,2,3-Trichloropropane	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
1,2,4-Trichlorobenzene	ND		190	µg/Kg-dry	1	2/22/2020 03:30 AM
1,2,4-Trimethylbenzene	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
1,2-Dibromo-3-chloropropane	ND		190	µg/Kg-dry	1	2/22/2020 03:30 AM
1,2-Dibromoethane	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
1,2-Dichlorobenzene	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
1,2-Dichloroethane	ND		190	µg/Kg-dry	1	2/22/2020 03:30 AM
1,2-Dichloropropane	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
1,3,5-Trimethylbenzene	ND		190	µg/Kg-dry	1	2/22/2020 03:30 AM
1,3-Dichlorobenzene	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
1,4-Dichlorobenzene	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
2-Butanone	ND		380	µg/Kg-dry	1	2/22/2020 03:30 AM
2-Hexanone	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
2-Methylnaphthalene	**1,100**		**190**	**µg/Kg-dry**	1	2/22/2020 03:30 AM
4-Methyl-2-pentanone	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
Acetone	ND		190	µg/Kg-dry	1	2/22/2020 03:30 AM
Acrylonitrile	ND		190	µg/Kg-dry	1	2/22/2020 03:30 AM
Benzene	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
Bromochloromethane	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
Bromodichloromethane	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-10R 0-1 **Lab ID:** 20021144-37
Collection Date: 2/17/2020 02:25 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
Bromomethane	ND		190	µg/Kg-dry	1	2/22/2020 03:30 AM
Carbon disulfide	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
Carbon tetrachloride	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
Chlorobenzene	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
Chloroethane	ND		190	µg/Kg-dry	1	2/22/2020 03:30 AM
Chloroform	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
Chloromethane	ND		190	µg/Kg-dry	1	2/22/2020 03:30 AM
cis-1,2-Dichloroethene	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
cis-1,3-Dichloropropene	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
Dibromochloromethane	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
Dibromomethane	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
Dichlorodifluoromethane	ND		190	µg/Kg-dry	1	2/22/2020 03:30 AM
Diethyl ether	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
Ethylbenzene	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
Hexachloroethane	ND		190	µg/Kg-dry	1	2/22/2020 03:30 AM
Isopropylbenzene	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
m,p-Xylene	ND		110	µg/Kg-dry	1	2/22/2020 03:30 AM
Methyl iodide	ND		940	µg/Kg-dry	1	2/22/2020 03:30 AM
Methyl tert-butyl ether	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
Methylene chloride	ND		470	µg/Kg-dry	1	2/22/2020 03:30 AM
Naphthalene	**560**		**190**	**µg/Kg-dry**	1	2/22/2020 03:30 AM
n-Propylbenzene	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
o-Xylene	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
Styrene	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
Tetrachloroethene	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
Toluene	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
trans-1,2-Dichloroethene	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
trans-1,3-Dichloropropene	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
trans-1,4-Dichloro-2-butene	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
Trichloroethene	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
Trichlorofluoromethane	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
Vinyl acetate	ND		470	µg/Kg-dry	1	2/22/2020 03:30 AM
Vinyl chloride	ND		56	µg/Kg-dry	1	2/22/2020 03:30 AM
Xylenes, Total	ND		170	µg/Kg-dry	1	2/22/2020 03:30 AM
Surr: 1,2-Dichloroethane-d4	*108*		*70-130*	*%REC*	1	2/22/2020 03:30 AM
Surr: 4-Bromofluorobenzene	*93.0*		*70-130*	*%REC*	1	2/22/2020 03:30 AM
Surr: Dibromofluoromethane	*98.4*		*70-130*	*%REC*	1	2/22/2020 03:30 AM
Surr: Toluene-d8	*105*		*70-130*	*%REC*	1	2/22/2020 03:30 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/18/20 18:24 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021144
Sample ID: S-10R 0-1
Lab ID: 20021144-37
Collection Date: 2/17/2020 02:25 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**0.26**		**0.025**	**mg/Kg-dry**	1	2/23/2020 01:05 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**20**		**0.10**	**% of sample**	1	2/19/2020 02:31 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/19/20 11:33	Analyst: **JZB**
Phosphorus, Total	**390**		**130**	**mg/Kg-dry**	4	2/21/2020 12:05 PM
PH			**SW9045D**		Prep: EXTRACT 2/18/20 15:00	Analyst: **DNW**
pH	**8.51**		**0.100**	**s.u.**	1	2/19/2020 09:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-10R 1-2
Collection Date: 2/17/2020 02:30 PM

Work Order: 20021144
Lab ID: 20021144-38
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/21/20 16:57		Analyst: **RM**
Aroclor 1016	ND		80	µg/Kg-dry	1	2/24/2020 03:42 PM
Aroclor 1221	ND		80	µg/Kg-dry	1	2/24/2020 03:42 PM
Aroclor 1232	ND		80	µg/Kg-dry	1	2/24/2020 03:42 PM
Aroclor 1242	ND		80	µg/Kg-dry	1	2/24/2020 03:42 PM
Aroclor 1248	ND		80	µg/Kg-dry	1	2/24/2020 03:42 PM
Aroclor 1254	ND		80	µg/Kg-dry	1	2/24/2020 03:42 PM
Aroclor 1260	ND		80	µg/Kg-dry	1	2/24/2020 03:42 PM
Aroclor 1262	ND		80	µg/Kg-dry	1	2/24/2020 03:42 PM
Aroclor 1268	ND		80	µg/Kg-dry	1	2/24/2020 03:42 PM
Surr: Decachlorobiphenyl	*68.7*		*40-140*	*%REC*	1	2/24/2020 03:42 PM
Surr: Tetrachloro-m-xylene	*66.7*		*45-124*	*%REC*	1	2/24/2020 03:42 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/21/20 16:19		Analyst: **RSH**
Mercury	**0.034**		**0.022**	**mg/Kg-dry**	1	2/24/2020 04:05 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/20/20 14:50		Analyst: **STP**
Arsenic	**6.6**		**0.40**	**mg/Kg-dry**	1	2/20/2020 08:19 PM
Barium	**66**		**0.40**	**mg/Kg-dry**	1	2/20/2020 08:19 PM
Cadmium	ND		0.16	mg/Kg-dry	1	2/20/2020 08:19 PM
Chromium	**15**		**0.40**	**mg/Kg-dry**	1	2/20/2020 08:19 PM
Copper	**23**		**4.0**	**mg/Kg-dry**	10	2/21/2020 05:26 PM
Lead	**13**		**0.40**	**mg/Kg-dry**	1	2/20/2020 08:19 PM
Nickel	**26**		**4.0**	**mg/Kg-dry**	10	2/21/2020 05:26 PM
Selenium	ND		0.40	mg/Kg-dry	1	2/20/2020 08:19 PM
Silver	ND		0.40	mg/Kg-dry	1	2/20/2020 08:19 PM
Thorium	**4.2**		**0.40**	**mg/Kg-dry**	1	2/20/2020 08:19 PM
Uranium	**1.8**		**0.40**	**mg/Kg-dry**	1	2/20/2020 08:19 PM
Zinc	**73**		**0.80**	**mg/Kg-dry**	1	2/20/2020 08:19 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/22/20 17:00		Analyst: **EEW**
1-Methylnaphthalene	**78**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:55 PM
2-Chloronaphthalene	ND		5.1	µg/Kg-dry	1	2/24/2020 02:55 PM
2-Methylnaphthalene	**120**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:55 PM
Acenaphthene	**130**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:55 PM
Acenaphthylene	**5.7**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:55 PM
Anthracene	**110**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:55 PM
Benzo(a)anthracene	**68**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:55 PM
Benzo(a)pyrene	**38**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:55 PM
Benzo(b)fluoranthene	**36**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:55 PM
Benzo(g,h,i)perylene	**12**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:55 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-10R 1-2 **Lab ID:** 20021144-38
Collection Date: 2/17/2020 02:30 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**15**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:55 PM
Chrysene	**50**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:55 PM
Dibenzo(a,h)anthracene	ND		5.1	µg/Kg-dry	1	2/24/2020 02:55 PM
Fluoranthene	**140**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:55 PM
Fluorene	**110**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:55 PM
Indeno(1,2,3-cd)pyrene	**14**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:55 PM
Naphthalene	**100**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:55 PM
Phenanthrene	**340**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:55 PM
Pyrene	**160**		**5.1**	**µg/Kg-dry**	1	2/24/2020 02:55 PM
Surr: 2-Fluorobiphenyl	*85.0*		*20-140*	*%REC*	1	2/24/2020 02:55 PM
Surr: 4-Terphenyl-d14	*98.5*		*22-172*	*%REC*	1	2/24/2020 02:55 PM
Surr: Nitrobenzene-d5	*111*		*28-140*	*%REC*	1	2/24/2020 02:55 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/18/20 14:08		Analyst: **JNS**
1,1,1,2-Tetrachloroethane	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
1,1,1-Trichloroethane	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
1,1,2,2-Tetrachloroethane	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
1,1,2-Trichloroethane	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
1,1,2-Trichlorotrifluoroethane	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
1,1-Dichloroethane	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
1,1-Dichloroethene	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
1,2,3-Trichloropropane	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
1,2,4-Trichlorobenzene	ND		140	µg/Kg-dry	1	2/22/2020 03:52 AM
1,2,4-Trimethylbenzene	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
1,2-Dibromo-3-chloropropane	ND		140	µg/Kg-dry	1	2/22/2020 03:52 AM
1,2-Dibromoethane	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
1,2-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
1,2-Dichloroethane	ND		140	µg/Kg-dry	1	2/22/2020 03:52 AM
1,2-Dichloropropane	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
1,3,5-Trimethylbenzene	ND		140	µg/Kg-dry	1	2/22/2020 03:52 AM
1,3-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
1,4-Dichlorobenzene	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
2-Butanone	ND		290	µg/Kg-dry	1	2/22/2020 03:52 AM
2-Hexanone	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
2-Methylnaphthalene	**230**		**140**	**µg/Kg-dry**	1	2/22/2020 03:52 AM
4-Methyl-2-pentanone	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
Acetone	ND		140	µg/Kg-dry	1	2/22/2020 03:52 AM
Acrylonitrile	ND		140	µg/Kg-dry	1	2/22/2020 03:52 AM
Benzene	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
Bromochloromethane	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
Bromodichloromethane	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-10R 1-2 **Lab ID:** 20021144-38
Collection Date: 2/17/2020 02:30 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
Bromomethane	ND		140	µg/Kg-dry	1	2/22/2020 03:52 AM
Carbon disulfide	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
Carbon tetrachloride	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
Chlorobenzene	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
Chloroethane	ND		140	µg/Kg-dry	1	2/22/2020 03:52 AM
Chloroform	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
Chloromethane	ND		140	µg/Kg-dry	1	2/22/2020 03:52 AM
cis-1,2-Dichloroethene	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
cis-1,3-Dichloropropene	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
Dibromochloromethane	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
Dibromomethane	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
Dichlorodifluoromethane	ND		140	µg/Kg-dry	1	2/22/2020 03:52 AM
Diethyl ether	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
Ethylbenzene	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
Hexachloroethane	ND		140	µg/Kg-dry	1	2/22/2020 03:52 AM
Isopropylbenzene	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
m,p-Xylene	ND		86	µg/Kg-dry	1	2/22/2020 03:52 AM
Methyl iodide	ND		720	µg/Kg-dry	1	2/22/2020 03:52 AM
Methyl tert-butyl ether	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
Methylene chloride	ND		360	µg/Kg-dry	1	2/22/2020 03:52 AM
Naphthalene	ND		140	µg/Kg-dry	1	2/22/2020 03:52 AM
n-Propylbenzene	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
o-Xylene	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
Styrene	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
Tetrachloroethene	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
Toluene	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
trans-1,2-Dichloroethene	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
trans-1,3-Dichloropropene	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
trans-1,4-Dichloro-2-butene	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
Trichloroethene	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
Trichlorofluoromethane	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
Vinyl acetate	ND		360	µg/Kg-dry	1	2/22/2020 03:52 AM
Vinyl chloride	ND		43	µg/Kg-dry	1	2/22/2020 03:52 AM
Xylenes, Total	ND		130	µg/Kg-dry	1	2/22/2020 03:52 AM
Surr: 1,2-Dichloroethane-d4	*109*		*70-130*	*%REC*	1	2/22/2020 03:52 AM
Surr: 4-Bromofluorobenzene	*97.0*		*70-130*	*%REC*	1	2/22/2020 03:52 AM
Surr: Dibromofluoromethane	*99.0*		*70-130*	*%REC*	1	2/22/2020 03:52 AM
Surr: Toluene-d8	*110*		*70-130*	*%REC*	1	2/22/2020 03:52 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/18/20 18:24 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021144
Sample ID: S-10R 1-2
Lab ID: 20021144-38
Collection Date: 2/17/2020 02:30 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**0.15**		**0.025**	**mg/Kg-dry**	1	2/23/2020 01:05 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**20**		**0.10**	**% of sample**	1	2/19/2020 02:31 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/19/20 11:33	Analyst: **JZB**
Phosphorus, Total	**370**		**290**	**mg/Kg-dry**	10	2/21/2020 01:06 PM
PH			**SW9045D**		Prep: EXTRACT 2/18/20 15:00	Analyst: **DNW**
pH	**8.36**		**0.100**	**s.u.**	1	2/19/2020 09:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-10R 2-3 **Lab ID:** 20021144-39
Collection Date: 2/17/2020 02:35 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/21/20 16:57		Analyst: **RM**
Aroclor 1016	ND		81	µg/Kg-dry	1	2/24/2020 03:57 PM
Aroclor 1221	ND		81	µg/Kg-dry	1	2/24/2020 03:57 PM
Aroclor 1232	ND		81	µg/Kg-dry	1	2/24/2020 03:57 PM
Aroclor 1242	ND		81	µg/Kg-dry	1	2/24/2020 03:57 PM
Aroclor 1248	ND		81	µg/Kg-dry	1	2/24/2020 03:57 PM
Aroclor 1254	ND		81	µg/Kg-dry	1	2/24/2020 03:57 PM
Aroclor 1260	ND		81	µg/Kg-dry	1	2/24/2020 03:57 PM
Aroclor 1262	ND		81	µg/Kg-dry	1	2/24/2020 03:57 PM
Aroclor 1268	ND		81	µg/Kg-dry	1	2/24/2020 03:57 PM
Surr: Decachlorobiphenyl	*42.9*		*40-140*	*%REC*	1	2/24/2020 03:57 PM
Surr: Tetrachloro-m-xylene	*60.0*		*45-124*	*%REC*	1	2/24/2020 03:57 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/21/20 16:19		Analyst: **RSH**
Mercury	**0.093**		**0.021**	**mg/Kg-dry**	1	2/24/2020 04:18 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/20/20 14:50		Analyst: **STP**
Arsenic	**6.9**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:21 PM
Barium	**73**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:21 PM
Cadmium	ND		0.15	mg/Kg-dry	1	2/20/2020 08:21 PM
Chromium	**15**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:21 PM
Copper	**20**		**3.9**	**mg/Kg-dry**	10	2/21/2020 05:27 PM
Lead	**11**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:21 PM
Nickel	**27**		**3.9**	**mg/Kg-dry**	10	2/21/2020 05:27 PM
Selenium	ND		0.39	mg/Kg-dry	1	2/20/2020 08:21 PM
Silver	ND		0.39	mg/Kg-dry	1	2/20/2020 08:21 PM
Thorium	**4.4**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:21 PM
Uranium	**1.9**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:21 PM
Zinc	**48**		**0.77**	**mg/Kg-dry**	1	2/20/2020 08:21 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/22/20 17:00		Analyst: **EEW**
1-Methylnaphthalene	**8.3**		**5.0**	**µg/Kg-dry**	1	2/24/2020 03:11 PM
2-Chloronaphthalene	ND		5.0	µg/Kg-dry	1	2/24/2020 03:11 PM
2-Methylnaphthalene	**16**		**5.0**	**µg/Kg-dry**	1	2/24/2020 03:11 PM
Acenaphthene	**37**		**5.0**	**µg/Kg-dry**	1	2/24/2020 03:11 PM
Acenaphthylene	ND		5.0	µg/Kg-dry	1	2/24/2020 03:11 PM
Anthracene	**25**		**5.0**	**µg/Kg-dry**	1	2/24/2020 03:11 PM
Benzo(a)anthracene	**48**		**5.0**	**µg/Kg-dry**	1	2/24/2020 03:11 PM
Benzo(a)pyrene	**30**		**5.0**	**µg/Kg-dry**	1	2/24/2020 03:11 PM
Benzo(b)fluoranthene	**32**		**5.0**	**µg/Kg-dry**	1	2/24/2020 03:11 PM
Benzo(g,h,i)perylene	**10**		**5.0**	**µg/Kg-dry**	1	2/24/2020 03:11 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-10R 2-3 **Lab ID:** 20021144-39
Collection Date: 2/17/2020 02:35 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**14**		**5.0**	**µg/Kg-dry**	1	2/24/2020 03:11 PM
Chrysene	**43**		**5.0**	**µg/Kg-dry**	1	2/24/2020 03:11 PM
Dibenzo(a,h)anthracene	ND		5.0	µg/Kg-dry	1	2/24/2020 03:11 PM
Fluoranthene	**120**		**5.0**	**µg/Kg-dry**	1	2/24/2020 03:11 PM
Fluorene	**34**		**5.0**	**µg/Kg-dry**	1	2/24/2020 03:11 PM
Indeno(1,2,3-cd)pyrene	**12**		**5.0**	**µg/Kg-dry**	1	2/24/2020 03:11 PM
Naphthalene	**6.3**		**5.0**	**µg/Kg-dry**	1	2/24/2020 03:11 PM
Phenanthrene	**62**		**5.0**	**µg/Kg-dry**	1	2/24/2020 03:11 PM
Pyrene	**130**		**5.0**	**µg/Kg-dry**	1	2/24/2020 03:11 PM
Surr: 2-Fluorobiphenyl	*82.8*		*20-140*	*%REC*	1	2/24/2020 03:11 PM
Surr: 4-Terphenyl-d14	*94.5*		*22-172*	*%REC*	1	2/24/2020 03:11 PM
Surr: Nitrobenzene-d5	*109*		*28-140*	*%REC*	1	2/24/2020 03:11 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/18/20 14:08		Analyst: **JNS**
1,1,1,2-Tetrachloroethane	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
1,1,1-Trichloroethane	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
1,1,2,2-Tetrachloroethane	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
1,1,2-Trichloroethane	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
1,1,2-Trichlorotrifluoroethane	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
1,1-Dichloroethane	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
1,1-Dichloroethene	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
1,2,3-Trichloropropane	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
1,2,4-Trichlorobenzene	ND		150	µg/Kg-dry	1	2/22/2020 04:14 AM
1,2,4-Trimethylbenzene	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
1,2-Dibromo-3-chloropropane	ND		150	µg/Kg-dry	1	2/22/2020 04:14 AM
1,2-Dibromoethane	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
1,2-Dichlorobenzene	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
1,2-Dichloroethane	ND		150	µg/Kg-dry	1	2/22/2020 04:14 AM
1,2-Dichloropropane	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
1,3,5-Trimethylbenzene	ND		150	µg/Kg-dry	1	2/22/2020 04:14 AM
1,3-Dichlorobenzene	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
1,4-Dichlorobenzene	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
2-Butanone	ND		300	µg/Kg-dry	1	2/22/2020 04:14 AM
2-Hexanone	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
2-Methylnaphthalene	ND		150	µg/Kg-dry	1	2/22/2020 04:14 AM
4-Methyl-2-pentanone	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
Acetone	ND		150	µg/Kg-dry	1	2/22/2020 04:14 AM
Acrylonitrile	ND		150	µg/Kg-dry	1	2/22/2020 04:14 AM
Benzene	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
Bromochloromethane	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
Bromodichloromethane	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-10R 2-3 **Lab ID:** 20021144-39
Collection Date: 2/17/2020 02:35 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
Bromomethane	ND		150	µg/Kg-dry	1	2/22/2020 04:14 AM
Carbon disulfide	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
Carbon tetrachloride	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
Chlorobenzene	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
Chloroethane	ND		150	µg/Kg-dry	1	2/22/2020 04:14 AM
Chloroform	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
Chloromethane	ND		150	µg/Kg-dry	1	2/22/2020 04:14 AM
cis-1,2-Dichloroethene	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
cis-1,3-Dichloropropene	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
Dibromochloromethane	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
Dibromomethane	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
Dichlorodifluoromethane	ND		150	µg/Kg-dry	1	2/22/2020 04:14 AM
Diethyl ether	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
Ethylbenzene	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
Hexachloroethane	ND		150	µg/Kg-dry	1	2/22/2020 04:14 AM
Isopropylbenzene	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
m,p-Xylene	ND		91	µg/Kg-dry	1	2/22/2020 04:14 AM
Methyl iodide	ND		760	µg/Kg-dry	1	2/22/2020 04:14 AM
Methyl tert-butyl ether	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
Methylene chloride	ND		380	µg/Kg-dry	1	2/22/2020 04:14 AM
Naphthalene	ND		150	µg/Kg-dry	1	2/22/2020 04:14 AM
n-Propylbenzene	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
o-Xylene	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
Styrene	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
Tetrachloroethene	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
Toluene	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
trans-1,2-Dichloroethene	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
trans-1,3-Dichloropropene	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
trans-1,4-Dichloro-2-butene	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
Trichloroethene	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
Trichlorofluoromethane	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
Vinyl acetate	ND		380	µg/Kg-dry	1	2/22/2020 04:14 AM
Vinyl chloride	ND		46	µg/Kg-dry	1	2/22/2020 04:14 AM
Xylenes, Total	ND		140	µg/Kg-dry	1	2/22/2020 04:14 AM
Surr: 1,2-Dichloroethane-d4	*106*		*70-130*	*%REC*	1	2/22/2020 04:14 AM
Surr: 4-Bromofluorobenzene	*92.7*		*70-130*	*%REC*	1	2/22/2020 04:14 AM
Surr: Dibromofluoromethane	*99.0*		*70-130*	*%REC*	1	2/22/2020 04:14 AM
Surr: Toluene-d8	*106*		*70-130*	*%REC*	1	2/22/2020 04:14 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/18/20 18:24 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021144
Sample ID: S-10R 2-3
Lab ID: 20021144-39
Collection Date: 2/17/2020 02:35 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor		Date Analyzed
Biochemical Oxygen Demand	**0.14**		**0.025**	**mg/Kg-dry**	1		2/23/2020 01:05 PM
MOISTURE			**SW3550C**				Analyst: **KTP**
Moisture	**19**		**0.10**	**% of sample**	1		2/19/2020 02:31 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0	2/19/20 11:33	Analyst: **JZB**
Phosphorus, Total	**410**		**110**	**mg/Kg-dry**	4		2/21/2020 12:12 PM
PH			**SW9045D**		Prep: EXTRACT	2/18/20 15:00	Analyst: **DNW**
pH	**8.34**		**0.100**	**s.u.**	1		2/19/2020 09:30 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-10R 3-4 **Lab ID:** 20021144-40
Collection Date: 2/17/2020 02:40 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/21/20 16:57		Analyst: **RM**
Aroclor 1016	ND		80	µg/Kg-dry	1	2/24/2020 04:13 PM
Aroclor 1221	ND		80	µg/Kg-dry	1	2/24/2020 04:13 PM
Aroclor 1232	ND		80	µg/Kg-dry	1	2/24/2020 04:13 PM
Aroclor 1242	ND		80	µg/Kg-dry	1	2/24/2020 04:13 PM
Aroclor 1248	ND		80	µg/Kg-dry	1	2/24/2020 04:13 PM
Aroclor 1254	ND		80	µg/Kg-dry	1	2/24/2020 04:13 PM
Aroclor 1260	ND		80	µg/Kg-dry	1	2/24/2020 04:13 PM
Aroclor 1262	ND		80	µg/Kg-dry	1	2/24/2020 04:13 PM
Aroclor 1268	ND		80	µg/Kg-dry	1	2/24/2020 04:13 PM
Surr: Decachlorobiphenyl	*47.1*		*40-140*	*%REC*	1	2/24/2020 04:13 PM
Surr: Tetrachloro-m-xylene	*58.1*		*45-124*	*%REC*	1	2/24/2020 04:13 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/21/20 16:19		Analyst: **RSH**
Mercury	ND		0.018	mg/Kg-dry	1	2/24/2020 04:20 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/20/20 14:50		Analyst: **STP**
Arsenic	**6.6**		**0.42**	**mg/Kg-dry**	1	2/20/2020 08:23 PM
Barium	**71**		**0.42**	**mg/Kg-dry**	1	2/20/2020 08:23 PM
Cadmium	ND		0.17	mg/Kg-dry	1	2/20/2020 08:23 PM
Chromium	**15**		**0.42**	**mg/Kg-dry**	1	2/20/2020 08:23 PM
Copper	**20**		**4.2**	**mg/Kg-dry**	10	2/21/2020 05:29 PM
Lead	**10**		**0.42**	**mg/Kg-dry**	1	2/20/2020 08:23 PM
Nickel	**28**		**4.2**	**mg/Kg-dry**	10	2/21/2020 05:29 PM
Selenium	**0.44**		**0.42**	**mg/Kg-dry**	1	2/20/2020 08:23 PM
Silver	ND		0.42	mg/Kg-dry	1	2/20/2020 08:23 PM
Thorium	**4.4**		**0.42**	**mg/Kg-dry**	1	2/20/2020 08:23 PM
Uranium	**1.9**		**0.42**	**mg/Kg-dry**	1	2/20/2020 08:23 PM
Zinc	**48**		**0.83**	**mg/Kg-dry**	1	2/20/2020 08:23 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/22/20 17:00		Analyst: **EEW**
1-Methylnaphthalene	**5.3**		**4.8**	**µg/Kg-dry**	1	2/24/2020 03:26 PM
2-Chloronaphthalene	ND		4.8	µg/Kg-dry	1	2/24/2020 03:26 PM
2-Methylnaphthalene	**11**		**4.8**	**µg/Kg-dry**	1	2/24/2020 03:26 PM
Acenaphthene	**8.1**		**4.8**	**µg/Kg-dry**	1	2/24/2020 03:26 PM
Acenaphthylene	ND		4.8	µg/Kg-dry	1	2/24/2020 03:26 PM
Anthracene	**8.1**		**4.8**	**µg/Kg-dry**	1	2/24/2020 03:26 PM
Benzo(a)anthracene	**9.2**		**4.8**	**µg/Kg-dry**	1	2/24/2020 03:26 PM
Benzo(a)pyrene	**5.5**		**4.8**	**µg/Kg-dry**	1	2/24/2020 03:26 PM
Benzo(b)fluoranthene	ND		4.8	µg/Kg-dry	1	2/24/2020 03:26 PM
Benzo(g,h,i)perylene	ND		4.8	µg/Kg-dry	1	2/24/2020 03:26 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-10R 3-4 **Lab ID:** 20021144-40
Collection Date: 2/17/2020 02:40 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		4.8	µg/Kg-dry	1	2/24/2020 03:26 PM
Chrysene	**8.7**		**4.8**	**µg/Kg-dry**	1	2/24/2020 03:26 PM
Dibenzo(a,h)anthracene	ND		4.8	µg/Kg-dry	1	2/24/2020 03:26 PM
Fluoranthene	**15**		**4.8**	**µg/Kg-dry**	1	2/24/2020 03:26 PM
Fluorene	**7.9**		**4.8**	**µg/Kg-dry**	1	2/24/2020 03:26 PM
Indeno(1,2,3-cd)pyrene	ND		4.8	µg/Kg-dry	1	2/24/2020 03:26 PM
Naphthalene	ND		4.8	µg/Kg-dry	1	2/24/2020 03:26 PM
Phenanthrene	**37**		**4.8**	**µg/Kg-dry**	1	2/24/2020 03:26 PM
Pyrene	**18**		**4.8**	**µg/Kg-dry**	1	2/24/2020 03:26 PM
Surr: 2-Fluorobiphenyl	*83.7*		*20-140*	*%REC*	1	2/24/2020 03:26 PM
Surr: 4-Terphenyl-d14	*93.3*		*22-172*	*%REC*	1	2/24/2020 03:26 PM
Surr: Nitrobenzene-d5	*109*		*28-140*	*%REC*	1	2/24/2020 03:26 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/18/20 14:08		Analyst: **BG**
1,1,1,2-Tetrachloroethane	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
1,1,1-Trichloroethane	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
1,1,2,2-Tetrachloroethane	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
1,1,2-Trichloroethane	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
1,1,2-Trichlorotrifluoroethane	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
1,1-Dichloroethane	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
1,1-Dichloroethene	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
1,2,3-Trichloropropane	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
1,2,4-Trichlorobenzene	ND		120	µg/Kg-dry	1	2/21/2020 08:44 AM
1,2,4-Trimethylbenzene	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
1,2-Dibromo-3-chloropropane	ND		120	µg/Kg-dry	1	2/21/2020 08:44 AM
1,2-Dibromoethane	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
1,2-Dichlorobenzene	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
1,2-Dichloroethane	ND		120	µg/Kg-dry	1	2/21/2020 08:44 AM
1,2-Dichloropropane	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
1,3,5-Trimethylbenzene	ND		120	µg/Kg-dry	1	2/21/2020 08:44 AM
1,3-Dichlorobenzene	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
1,4-Dichlorobenzene	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
2-Butanone	ND		250	µg/Kg-dry	1	2/21/2020 08:44 AM
2-Hexanone	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
2-Methylnaphthalene	ND		120	µg/Kg-dry	1	2/21/2020 08:44 AM
4-Methyl-2-pentanone	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
Acetone	ND		120	µg/Kg-dry	1	2/21/2020 08:44 AM
Acrylonitrile	ND		120	µg/Kg-dry	1	2/21/2020 08:44 AM
Benzene	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
Bromochloromethane	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
Bromodichloromethane	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-10R 3-4
Collection Date: 2/17/2020 02:40 PM

Work Order: 20021144
Lab ID: 20021144-40
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
Bromomethane	ND		120	µg/Kg-dry	1	2/21/2020 08:44 AM
Carbon disulfide	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
Carbon tetrachloride	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
Chlorobenzene	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
Chloroethane	ND		120	µg/Kg-dry	1	2/21/2020 08:44 AM
Chloroform	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
Chloromethane	ND		120	µg/Kg-dry	1	2/21/2020 08:44 AM
cis-1,2-Dichloroethene	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
cis-1,3-Dichloropropene	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
Dibromochloromethane	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
Dibromomethane	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
Dichlorodifluoromethane	ND		120	µg/Kg-dry	1	2/21/2020 08:44 AM
Diethyl ether	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
Ethylbenzene	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
Hexachloroethane	ND		120	µg/Kg-dry	1	2/21/2020 08:44 AM
Isopropylbenzene	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
m,p-Xylene	ND		75	µg/Kg-dry	1	2/21/2020 08:44 AM
Methyl iodide	ND		620	µg/Kg-dry	1	2/21/2020 08:44 AM
Methyl tert-butyl ether	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
Methylene chloride	ND		310	µg/Kg-dry	1	2/21/2020 08:44 AM
Naphthalene	ND		120	µg/Kg-dry	1	2/21/2020 08:44 AM
n-Propylbenzene	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
o-Xylene	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
Styrene	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
Tetrachloroethene	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
Toluene	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
trans-1,2-Dichloroethene	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
trans-1,3-Dichloropropene	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
trans-1,4-Dichloro-2-butene	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
Trichloroethene	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
Trichlorofluoromethane	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
Vinyl acetate	ND		310	µg/Kg-dry	1	2/21/2020 08:44 AM
Vinyl chloride	ND		37	µg/Kg-dry	1	2/21/2020 08:44 AM
Xylenes, Total	ND		110	µg/Kg-dry	1	2/21/2020 08:44 AM
Surr: 1,2-Dichloroethane-d4	*95.9*		*70-130*	*%REC*	1	2/21/2020 08:44 AM
Surr: 4-Bromofluorobenzene	*95.2*		*70-130*	*%REC*	1	2/21/2020 08:44 AM
Surr: Dibromofluoromethane	*90.8*		*70-130*	*%REC*	1	2/21/2020 08:44 AM
Surr: Toluene-d8	*96.6*		*70-130*	*%REC*	1	2/21/2020 08:44 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/18/20 18:24 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-10R 3-4
Collection Date: 2/17/2020 02:40 PM

Work Order: 20021144
Lab ID: 20021144-40
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor		Date Analyzed
Biochemical Oxygen Demand	ND		0.024	mg/Kg-dry	1		2/23/2020 01:05 PM
MOISTURE			**SW3550C**				Analyst: **KTP**
Moisture	**18**		**0.10**	**% of sample**	1		2/19/2020 02:31 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**			Prep: E365.1 R2.0 2/19/20 11:33	Analyst: **JZB**
Phosphorus, Total	**360**		**120**	**mg/Kg-dry**	4		2/21/2020 12:13 PM
PH			**SW9045D**			Prep: EXTRACT 2/19/20 15:38	Analyst: **DNW**
pH	**8.19**		**0.100**	**s.u.**	1		2/20/2020 08:00 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-10R 4-5 **Lab ID:** 20021144-41
Collection Date: 2/17/2020 02:45 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/21/20 16:57		Analyst: **RM**
Aroclor 1016	ND		78	µg/Kg-dry	1	2/24/2020 04:28 PM
Aroclor 1221	ND		78	µg/Kg-dry	1	2/24/2020 04:28 PM
Aroclor 1232	ND		78	µg/Kg-dry	1	2/24/2020 04:28 PM
Aroclor 1242	ND		78	µg/Kg-dry	1	2/24/2020 04:28 PM
Aroclor 1248	ND		78	µg/Kg-dry	1	2/24/2020 04:28 PM
Aroclor 1254	ND		78	µg/Kg-dry	1	2/24/2020 04:28 PM
Aroclor 1260	ND		78	µg/Kg-dry	1	2/24/2020 04:28 PM
Aroclor 1262	ND		78	µg/Kg-dry	1	2/24/2020 04:28 PM
Aroclor 1268	ND		78	µg/Kg-dry	1	2/24/2020 04:28 PM
Surr: Decachlorobiphenyl	*33.9*	S	*40-140*	*%REC*	1	2/24/2020 04:28 PM
Surr: Tetrachloro-m-xylene	*52.0*		*45-124*	*%REC*	1	2/24/2020 04:28 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/21/20 16:19		Analyst: **RSH**
Mercury	ND		0.022	mg/Kg-dry	1	2/24/2020 04:22 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/20/20 14:50		Analyst: **STP**
Arsenic	**5.7**		**0.38**	**mg/Kg-dry**	1	2/20/2020 08:25 PM
Barium	**67**		**0.38**	**mg/Kg-dry**	1	2/20/2020 08:25 PM
Cadmium	ND		0.15	mg/Kg-dry	1	2/20/2020 08:25 PM
Chromium	**14**		**0.38**	**mg/Kg-dry**	1	2/20/2020 08:25 PM
Copper	**19**		**3.8**	**mg/Kg-dry**	10	2/21/2020 05:34 PM
Lead	**9.5**		**0.38**	**mg/Kg-dry**	1	2/20/2020 08:25 PM
Nickel	**27**		**3.8**	**mg/Kg-dry**	10	2/21/2020 05:34 PM
Selenium	ND		0.38	mg/Kg-dry	1	2/20/2020 08:25 PM
Silver	ND		0.38	mg/Kg-dry	1	2/20/2020 08:25 PM
Thorium	**4.4**		**0.38**	**mg/Kg-dry**	1	2/20/2020 08:25 PM
Uranium	**1.9**		**0.38**	**mg/Kg-dry**	1	2/20/2020 08:25 PM
Zinc	**44**		**0.77**	**mg/Kg-dry**	1	2/20/2020 08:25 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/22/20 17:00		Analyst: **EEW**
1-Methylnaphthalene	ND		4.9	µg/Kg-dry	1	2/24/2020 03:42 PM
2-Chloronaphthalene	ND		4.9	µg/Kg-dry	1	2/24/2020 03:42 PM
2-Methylnaphthalene	ND		4.9	µg/Kg-dry	1	2/24/2020 03:42 PM
Acenaphthene	ND		4.9	µg/Kg-dry	1	2/24/2020 03:42 PM
Acenaphthylene	ND		4.9	µg/Kg-dry	1	2/24/2020 03:42 PM
Anthracene	ND		4.9	µg/Kg-dry	1	2/24/2020 03:42 PM
Benzo(a)anthracene	ND		4.9	µg/Kg-dry	1	2/24/2020 03:42 PM
Benzo(a)pyrene	ND		4.9	µg/Kg-dry	1	2/24/2020 03:42 PM
Benzo(b)fluoranthene	ND		4.9	µg/Kg-dry	1	2/24/2020 03:42 PM
Benzo(g,h,i)perylene	ND		4.9	µg/Kg-dry	1	2/24/2020 03:42 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-10R 4-5 **Lab ID:** 20021144-41
Collection Date: 2/17/2020 02:45 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		4.9	µg/Kg-dry	1	2/24/2020 03:42 PM
Chrysene	ND		4.9	µg/Kg-dry	1	2/24/2020 03:42 PM
Dibenzo(a,h)anthracene	ND		4.9	µg/Kg-dry	1	2/24/2020 03:42 PM
Fluoranthene	ND		4.9	µg/Kg-dry	1	2/24/2020 03:42 PM
Fluorene	ND		4.9	µg/Kg-dry	1	2/24/2020 03:42 PM
Indeno(1,2,3-cd)pyrene	ND		4.9	µg/Kg-dry	1	2/24/2020 03:42 PM
Naphthalene	ND		4.9	µg/Kg-dry	1	2/24/2020 03:42 PM
Phenanthrene	**18**		**4.9**	**µg/Kg-dry**	1	2/24/2020 03:42 PM
Pyrene	ND		4.9	µg/Kg-dry	1	2/24/2020 03:42 PM
Surr: 2-Fluorobiphenyl	*85.5*		*20-140*	*%REC*	1	2/24/2020 03:42 PM
Surr: 4-Terphenyl-d14	*100*		*22-172*	*%REC*	1	2/24/2020 03:42 PM
Surr: Nitrobenzene-d5	*108*		*28-140*	*%REC*	1	2/24/2020 03:42 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/18/20 14:08		Analyst: **JNS**
1,1,1,2-Tetrachloroethane	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
1,1,1-Trichloroethane	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
1,1,2,2-Tetrachloroethane	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
1,1,2-Trichloroethane	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
1,1,2-Trichlorotrifluoroethane	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
1,1-Dichloroethane	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
1,1-Dichloroethene	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
1,2,3-Trichloropropane	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
1,2,4-Trichlorobenzene	ND		130	µg/Kg-dry	1	2/22/2020 04:36 AM
1,2,4-Trimethylbenzene	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
1,2-Dibromo-3-chloropropane	ND		130	µg/Kg-dry	1	2/22/2020 04:36 AM
1,2-Dibromoethane	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
1,2-Dichlorobenzene	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
1,2-Dichloroethane	ND		130	µg/Kg-dry	1	2/22/2020 04:36 AM
1,2-Dichloropropane	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
1,3,5-Trimethylbenzene	ND		130	µg/Kg-dry	1	2/22/2020 04:36 AM
1,3-Dichlorobenzene	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
1,4-Dichlorobenzene	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
2-Butanone	ND		260	µg/Kg-dry	1	2/22/2020 04:36 AM
2-Hexanone	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
2-Methylnaphthalene	ND		130	µg/Kg-dry	1	2/22/2020 04:36 AM
4-Methyl-2-pentanone	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
Acetone	ND		130	µg/Kg-dry	1	2/22/2020 04:36 AM
Acrylonitrile	ND		130	µg/Kg-dry	1	2/22/2020 04:36 AM
Benzene	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
Bromochloromethane	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
Bromodichloromethane	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021144
Sample ID: S-10R 4-5
Lab ID: 20021144-41
Collection Date: 2/17/2020 02:45 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
Bromomethane	ND		130	µg/Kg-dry	1	2/22/2020 04:36 AM
Carbon disulfide	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
Carbon tetrachloride	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
Chlorobenzene	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
Chloroethane	ND		130	µg/Kg-dry	1	2/22/2020 04:36 AM
Chloroform	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
Chloromethane	ND		130	µg/Kg-dry	1	2/22/2020 04:36 AM
cis-1,2-Dichloroethene	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
cis-1,3-Dichloropropene	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
Dibromochloromethane	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
Dibromomethane	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
Dichlorodifluoromethane	ND		130	µg/Kg-dry	1	2/22/2020 04:36 AM
Diethyl ether	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
Ethylbenzene	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
Hexachloroethane	ND		130	µg/Kg-dry	1	2/22/2020 04:36 AM
Isopropylbenzene	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
m,p-Xylene	ND		78	µg/Kg-dry	1	2/22/2020 04:36 AM
Methyl iodide	ND		650	µg/Kg-dry	1	2/22/2020 04:36 AM
Methyl tert-butyl ether	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
Methylene chloride	ND		320	µg/Kg-dry	1	2/22/2020 04:36 AM
Naphthalene	ND		130	µg/Kg-dry	1	2/22/2020 04:36 AM
n-Propylbenzene	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
o-Xylene	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
Styrene	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
Tetrachloroethene	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
Toluene	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
trans-1,2-Dichloroethene	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
trans-1,3-Dichloropropene	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
trans-1,4-Dichloro-2-butene	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
Trichloroethene	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
Trichlorofluoromethane	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
Vinyl acetate	ND		320	µg/Kg-dry	1	2/22/2020 04:36 AM
Vinyl chloride	ND		39	µg/Kg-dry	1	2/22/2020 04:36 AM
Xylenes, Total	ND		120	µg/Kg-dry	1	2/22/2020 04:36 AM
Surr: 1,2-Dichloroethane-d4	*107*		*70-130*	*%REC*	1	2/22/2020 04:36 AM
Surr: 4-Bromofluorobenzene	*95.8*		*70-130*	*%REC*	1	2/22/2020 04:36 AM
Surr: Dibromofluoromethane	*98.4*		*70-130*	*%REC*	1	2/22/2020 04:36 AM
Surr: Toluene-d8	*109*		*70-130*	*%REC*	1	2/22/2020 04:36 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/18/20 18:30 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-10R 4-5
Collection Date: 2/17/2020 02:45 PM

Work Order: 20021144
Lab ID: 20021144-41
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	ND		0.024	mg/Kg-dry	1	2/23/2020 01:05 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**18**		**0.10**	**% of sample**	1	2/19/2020 02:31 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/21/20 09:43	Analyst: **JZB**
Phosphorus, Total	**330**		**130**	**mg/Kg-dry**	4	2/21/2020 02:05 PM
PH			**SW9045D**		Prep: EXTRACT 2/19/20 15:38	Analyst: **DNW**
pH	**8.21**		**0.100**	**s.u.**	1	2/20/2020 08:00 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-12R 0-1
Collection Date: 2/17/2020 03:15 PM

Work Order: 20021144
Lab ID: 20021144-42
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/21/20 16:57		Analyst: **RM**
Aroclor 1016	ND		81	µg/Kg-dry	1	2/24/2020 04:44 PM
Aroclor 1221	ND		81	µg/Kg-dry	1	2/24/2020 04:44 PM
Aroclor 1232	ND		81	µg/Kg-dry	1	2/24/2020 04:44 PM
Aroclor 1242	ND		81	µg/Kg-dry	1	2/24/2020 04:44 PM
Aroclor 1248	ND		81	µg/Kg-dry	1	2/24/2020 04:44 PM
Aroclor 1254	ND		81	µg/Kg-dry	1	2/24/2020 04:44 PM
Aroclor 1260	ND		81	µg/Kg-dry	1	2/24/2020 04:44 PM
Aroclor 1262	ND		81	µg/Kg-dry	1	2/24/2020 04:44 PM
Aroclor 1268	ND		81	µg/Kg-dry	1	2/24/2020 04:44 PM
Surr: Decachlorobiphenyl	*63.6*		*40-140*	*%REC*	1	2/24/2020 04:44 PM
Surr: Tetrachloro-m-xylene	*63.5*		*45-124*	*%REC*	1	2/24/2020 04:44 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/21/20 16:19		Analyst: **RSH**
Mercury	**0.028**		**0.021**	**mg/Kg-dry**	1	2/24/2020 04:24 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/20/20 14:50		Analyst: **STP**
Arsenic	**7.2**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:27 PM
Barium	**68**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:27 PM
Cadmium	ND		0.16	mg/Kg-dry	1	2/20/2020 08:27 PM
Chromium	**16**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:27 PM
Copper	**47**		**3.9**	**mg/Kg-dry**	10	2/21/2020 05:36 PM
Lead	**15**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:27 PM
Nickel	**24**		**3.9**	**mg/Kg-dry**	10	2/21/2020 05:36 PM
Selenium	ND		0.39	mg/Kg-dry	1	2/20/2020 08:27 PM
Silver	ND		0.39	mg/Kg-dry	1	2/20/2020 08:27 PM
Thorium	**4.2**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:27 PM
Uranium	**1.6**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:27 PM
Zinc	**53**		**0.79**	**mg/Kg-dry**	1	2/20/2020 08:27 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/22/20 17:00		Analyst: **EEW**
1-Methylnaphthalene	ND		5.1	µg/Kg-dry	1	2/24/2020 03:57 PM
2-Chloronaphthalene	ND		5.1	µg/Kg-dry	1	2/24/2020 03:57 PM
2-Methylnaphthalene	ND		5.1	µg/Kg-dry	1	2/24/2020 03:57 PM
Acenaphthene	**18**		**5.1**	**µg/Kg-dry**	1	2/24/2020 03:57 PM
Acenaphthylene	ND		5.1	µg/Kg-dry	1	2/24/2020 03:57 PM
Anthracene	**29**		**5.1**	**µg/Kg-dry**	1	2/24/2020 03:57 PM
Benzo(a)anthracene	**34**		**5.1**	**µg/Kg-dry**	1	2/24/2020 03:57 PM
Benzo(a)pyrene	**19**		**5.1**	**µg/Kg-dry**	1	2/24/2020 03:57 PM
Benzo(b)fluoranthene	**22**		**5.1**	**µg/Kg-dry**	1	2/24/2020 03:57 PM
Benzo(g,h,i)perylene	**6.3**		**5.1**	**µg/Kg-dry**	1	2/24/2020 03:57 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-12R 0-1 **Lab ID:** 20021144-42
Collection Date: 2/17/2020 03:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**6.6**		**5.1**	**µg/Kg-dry**	1	2/24/2020 03:57 PM
Chrysene	**30**		**5.1**	**µg/Kg-dry**	1	2/24/2020 03:57 PM
Dibenzo(a,h)anthracene	ND		5.1	µg/Kg-dry	1	2/24/2020 03:57 PM
Fluoranthene	**66**		**5.1**	**µg/Kg-dry**	1	2/24/2020 03:57 PM
Fluorene	**17**		**5.1**	**µg/Kg-dry**	1	2/24/2020 03:57 PM
Indeno(1,2,3-cd)pyrene	**6.3**		**5.1**	**µg/Kg-dry**	1	2/24/2020 03:57 PM
Naphthalene	ND		5.1	µg/Kg-dry	1	2/24/2020 03:57 PM
Phenanthrene	**62**		**5.1**	**µg/Kg-dry**	1	2/24/2020 03:57 PM
Pyrene	**76**		**5.1**	**µg/Kg-dry**	1	2/24/2020 03:57 PM
Surr: 2-Fluorobiphenyl	*79.7*		*20-140*	*%REC*	1	2/24/2020 03:57 PM
Surr: 4-Terphenyl-d14	*89.0*		*22-172*	*%REC*	1	2/24/2020 03:57 PM
Surr: Nitrobenzene-d5	*103*		*28-140*	*%REC*	1	2/24/2020 03:57 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/18/20 14:08		Analyst: **BG**
1,1,1,2-Tetrachloroethane	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
1,1,1-Trichloroethane	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
1,1,2,2-Tetrachloroethane	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
1,1,2-Trichloroethane	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
1,1,2-Trichlorotrifluoroethane	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
1,1-Dichloroethane	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
1,1-Dichloroethene	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
1,2,3-Trichloropropane	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
1,2,4-Trichlorobenzene	ND		150	µg/Kg-dry	1	2/21/2020 08:22 AM
1,2,4-Trimethylbenzene	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
1,2-Dibromo-3-chloropropane	ND		150	µg/Kg-dry	1	2/21/2020 08:22 AM
1,2-Dibromoethane	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
1,2-Dichlorobenzene	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
1,2-Dichloroethane	ND		150	µg/Kg-dry	1	2/21/2020 08:22 AM
1,2-Dichloropropane	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
1,3,5-Trimethylbenzene	ND		150	µg/Kg-dry	1	2/21/2020 08:22 AM
1,3-Dichlorobenzene	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
1,4-Dichlorobenzene	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
2-Butanone	ND		290	µg/Kg-dry	1	2/21/2020 08:22 AM
2-Hexanone	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
2-Methylnaphthalene	ND		150	µg/Kg-dry	1	2/21/2020 08:22 AM
4-Methyl-2-pentanone	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
Acetone	ND		150	µg/Kg-dry	1	2/21/2020 08:22 AM
Acrylonitrile	ND		150	µg/Kg-dry	1	2/21/2020 08:22 AM
Benzene	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
Bromochloromethane	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
Bromodichloromethane	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-12R 0-1 **Lab ID:** 20021144-42
Collection Date: 2/17/2020 03:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
Bromomethane	ND		150	µg/Kg-dry	1	2/21/2020 08:22 AM
Carbon disulfide	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
Carbon tetrachloride	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
Chlorobenzene	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
Chloroethane	ND		150	µg/Kg-dry	1	2/21/2020 08:22 AM
Chloroform	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
Chloromethane	ND		150	µg/Kg-dry	1	2/21/2020 08:22 AM
cis-1,2-Dichloroethene	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
cis-1,3-Dichloropropene	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
Dibromochloromethane	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
Dibromomethane	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
Dichlorodifluoromethane	ND		150	µg/Kg-dry	1	2/21/2020 08:22 AM
Diethyl ether	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
Ethylbenzene	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
Hexachloroethane	ND		150	µg/Kg-dry	1	2/21/2020 08:22 AM
Isopropylbenzene	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
m,p-Xylene	ND		88	µg/Kg-dry	1	2/21/2020 08:22 AM
Methyl iodide	ND		740	µg/Kg-dry	1	2/21/2020 08:22 AM
Methyl tert-butyl ether	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
Methylene chloride	ND		370	µg/Kg-dry	1	2/21/2020 08:22 AM
Naphthalene	ND		150	µg/Kg-dry	1	2/21/2020 08:22 AM
n-Propylbenzene	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
o-Xylene	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
Styrene	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
Tetrachloroethene	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
Toluene	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
trans-1,2-Dichloroethene	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
trans-1,3-Dichloropropene	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
trans-1,4-Dichloro-2-butene	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
Trichloroethene	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
Trichlorofluoromethane	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
Vinyl acetate	ND		370	µg/Kg-dry	1	2/21/2020 08:22 AM
Vinyl chloride	ND		44	µg/Kg-dry	1	2/21/2020 08:22 AM
Xylenes, Total	ND		130	µg/Kg-dry	1	2/21/2020 08:22 AM
Surr: 1,2-Dichloroethane-d4	*96.0*		*70-130*	*%REC*	1	2/21/2020 08:22 AM
Surr: 4-Bromofluorobenzene	*96.6*		*70-130*	*%REC*	1	2/21/2020 08:22 AM
Surr: Dibromofluoromethane	*95.2*		*70-130*	*%REC*	1	2/21/2020 08:22 AM
Surr: Toluene-d8	*97.3*		*70-130*	*%REC*	1	2/21/2020 08:22 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/18/20 18:30 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021144
Sample ID: S-12R 0-1
Lab ID: 20021144-42
Collection Date: 2/17/2020 03:15 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**0.12**		**0.025**	**mg/Kg-dry**	1	2/23/2020 01:05 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**19**		**0.10**	**% of sample**	1	2/19/2020 02:31 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/21/20 09:43	Analyst: **JZB**
Phosphorus, Total	**410**		**130**	**mg/Kg-dry**	4	2/21/2020 02:09 PM
PH			**SW9045D**		Prep: EXTRACT 2/19/20 15:38	Analyst: **DNW**
pH	**8.59**		**0.100**	**s.u.**	1	2/20/2020 08:00 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-12R 1-2
Collection Date: 2/17/2020 04:20 PM

Work Order: 20021144
Lab ID: 20021144-43
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/21/20 16:57		Analyst: **RM**
Aroclor 1016	ND		90	µg/Kg-dry	1	2/24/2020 04:59 PM
Aroclor 1221	ND		90	µg/Kg-dry	1	2/24/2020 04:59 PM
Aroclor 1232	ND		90	µg/Kg-dry	1	2/24/2020 04:59 PM
Aroclor 1242	ND		90	µg/Kg-dry	1	2/24/2020 04:59 PM
Aroclor 1248	ND		90	µg/Kg-dry	1	2/24/2020 04:59 PM
Aroclor 1254	ND		90	µg/Kg-dry	1	2/24/2020 04:59 PM
Aroclor 1260	ND		90	µg/Kg-dry	1	2/24/2020 04:59 PM
Aroclor 1262	ND		90	µg/Kg-dry	1	2/24/2020 04:59 PM
Aroclor 1268	ND		90	µg/Kg-dry	1	2/24/2020 04:59 PM
Surr: Decachlorobiphenyl	*34.6*	S	*40-140*	*%REC*	1	2/24/2020 04:59 PM
Surr: Tetrachloro-m-xylene	*57.8*		*45-124*	*%REC*	1	2/24/2020 04:59 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/21/20 16:19		Analyst: **RSH**
Mercury	ND		0.025	mg/Kg-dry	1	2/24/2020 04:26 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/20/20 14:50		Analyst: **STP**
Arsenic	**4.2**		**0.56**	**mg/Kg-dry**	1	2/20/2020 08:28 PM
Barium	**110**		**0.56**	**mg/Kg-dry**	1	2/20/2020 08:28 PM
Cadmium	ND		0.22	mg/Kg-dry	1	2/20/2020 08:28 PM
Chromium	**22**		**0.56**	**mg/Kg-dry**	1	2/20/2020 08:28 PM
Copper	**20**		**0.56**	**mg/Kg-dry**	1	2/20/2020 08:28 PM
Lead	**11**		**0.56**	**mg/Kg-dry**	1	2/20/2020 08:28 PM
Nickel	**31**		**5.6**	**mg/Kg-dry**	10	2/21/2020 05:38 PM
Selenium	ND		0.56	mg/Kg-dry	1	2/20/2020 08:28 PM
Silver	ND		0.56	mg/Kg-dry	1	2/20/2020 08:28 PM
Thorium	**5.9**		**0.56**	**mg/Kg-dry**	1	2/20/2020 08:28 PM
Uranium	**1.4**		**0.56**	**mg/Kg-dry**	1	2/20/2020 08:28 PM
Zinc	**54**		**1.1**	**mg/Kg-dry**	1	2/20/2020 08:28 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/22/20 17:00		Analyst: **EEW**
1-Methylnaphthalene	ND		5.4	µg/Kg-dry	1	2/24/2020 04:54 PM
2-Chloronaphthalene	ND		5.4	µg/Kg-dry	1	2/24/2020 04:54 PM
2-Methylnaphthalene	ND		5.4	µg/Kg-dry	1	2/24/2020 04:54 PM
Acenaphthene	ND		5.4	µg/Kg-dry	1	2/24/2020 04:54 PM
Acenaphthylene	ND		5.4	µg/Kg-dry	1	2/24/2020 04:54 PM
Anthracene	ND		5.4	µg/Kg-dry	1	2/24/2020 04:54 PM
Benzo(a)anthracene	**6.3**		**5.4**	**µg/Kg-dry**	1	2/24/2020 04:54 PM
Benzo(a)pyrene	ND		5.4	µg/Kg-dry	1	2/24/2020 04:54 PM
Benzo(b)fluoranthene	**6.3**		**5.4**	**µg/Kg-dry**	1	2/24/2020 04:54 PM
Benzo(g,h,i)perylene	**6.4**		**5.4**	**µg/Kg-dry**	1	2/24/2020 04:54 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-12R 1-2 **Lab ID:** 20021144-43
Collection Date: 2/17/2020 04:20 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.4	µg/Kg-dry	1	2/24/2020 04:54 PM
Chrysene	ND		5.4	µg/Kg-dry	1	2/24/2020 04:54 PM
Dibenzo(a,h)anthracene	ND		5.4	µg/Kg-dry	1	2/24/2020 04:54 PM
Fluoranthene	**5.8**		**5.4**	**µg/Kg-dry**	1	2/24/2020 04:54 PM
Fluorene	ND		5.4	µg/Kg-dry	1	2/24/2020 04:54 PM
Indeno(1,2,3-cd)pyrene	ND		5.4	µg/Kg-dry	1	2/24/2020 04:54 PM
Naphthalene	ND		5.4	µg/Kg-dry	1	2/24/2020 04:54 PM
Phenanthrene	**14**		**5.4**	**µg/Kg-dry**	1	2/24/2020 04:54 PM
Pyrene	**6.9**		**5.4**	**µg/Kg-dry**	1	2/24/2020 04:54 PM
Surr: 2-Fluorobiphenyl	*78.7*		*20-140*	*%REC*	1	2/24/2020 04:54 PM
Surr: 4-Terphenyl-d14	*89.1*		*22-172*	*%REC*	1	2/24/2020 04:54 PM
Surr: Nitrobenzene-d5	*103*		*28-140*	*%REC*	1	2/24/2020 04:54 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/18/20 14:08		Analyst: **BG**
1,1,1,2-Tetrachloroethane	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
1,1,1-Trichloroethane	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
1,1,2,2-Tetrachloroethane	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
1,1,2-Trichloroethane	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
1,1,2-Trichlorotrifluoroethane	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
1,1-Dichloroethane	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
1,1-Dichloroethene	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
1,2,3-Trichloropropane	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
1,2,4-Trichlorobenzene	ND		200	µg/Kg-dry	1	2/21/2020 06:32 AM
1,2,4-Trimethylbenzene	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
1,2-Dibromo-3-chloropropane	ND		200	µg/Kg-dry	1	2/21/2020 06:32 AM
1,2-Dibromoethane	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
1,2-Dichlorobenzene	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
1,2-Dichloroethane	ND		200	µg/Kg-dry	1	2/21/2020 06:32 AM
1,2-Dichloropropane	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
1,3,5-Trimethylbenzene	ND		200	µg/Kg-dry	1	2/21/2020 06:32 AM
1,3-Dichlorobenzene	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
1,4-Dichlorobenzene	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
2-Butanone	ND		400	µg/Kg-dry	1	2/21/2020 06:32 AM
2-Hexanone	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
2-Methylnaphthalene	ND		200	µg/Kg-dry	1	2/21/2020 06:32 AM
4-Methyl-2-pentanone	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
Acetone	ND		200	µg/Kg-dry	1	2/21/2020 06:32 AM
Acrylonitrile	ND		200	µg/Kg-dry	1	2/21/2020 06:32 AM
Benzene	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
Bromochloromethane	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
Bromodichloromethane	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-12R 1-2 **Lab ID:** 20021144-43
Collection Date: 2/17/2020 04:20 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
Bromomethane	ND		200	µg/Kg-dry	1	2/21/2020 06:32 AM
Carbon disulfide	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
Carbon tetrachloride	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
Chlorobenzene	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
Chloroethane	ND		200	µg/Kg-dry	1	2/21/2020 06:32 AM
Chloroform	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
Chloromethane	ND		200	µg/Kg-dry	1	2/21/2020 06:32 AM
cis-1,2-Dichloroethene	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
cis-1,3-Dichloropropene	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
Dibromochloromethane	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
Dibromomethane	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
Dichlorodifluoromethane	ND		200	µg/Kg-dry	1	2/21/2020 06:32 AM
Diethyl ether	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
Ethylbenzene	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
Hexachloroethane	ND		200	µg/Kg-dry	1	2/21/2020 06:32 AM
Isopropylbenzene	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
m,p-Xylene	ND		120	µg/Kg-dry	1	2/21/2020 06:32 AM
Methyl iodide	ND		1,000	µg/Kg-dry	1	2/21/2020 06:32 AM
Methyl tert-butyl ether	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
Methylene chloride	ND		500	µg/Kg-dry	1	2/21/2020 06:32 AM
Naphthalene	ND		200	µg/Kg-dry	1	2/21/2020 06:32 AM
n-Propylbenzene	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
o-Xylene	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
Styrene	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
Tetrachloroethene	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
Toluene	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
trans-1,2-Dichloroethene	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
trans-1,3-Dichloropropene	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
trans-1,4-Dichloro-2-butene	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
Trichloroethene	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
Trichlorofluoromethane	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
Vinyl acetate	ND		500	µg/Kg-dry	1	2/21/2020 06:32 AM
Vinyl chloride	ND		60	µg/Kg-dry	1	2/21/2020 06:32 AM
Xylenes, Total	ND		180	µg/Kg-dry	1	2/21/2020 06:32 AM
Surr: 1,2-Dichloroethane-d4	*98.3*		*70-130*	*%REC*	1	2/21/2020 06:32 AM
Surr: 4-Bromofluorobenzene	*97.5*		*70-130*	*%REC*	1	2/21/2020 06:32 AM
Surr: Dibromofluoromethane	*93.4*		*70-130*	*%REC*	1	2/21/2020 06:32 AM
Surr: Toluene-d8	*96.8*		*70-130*	*%REC*	1	2/21/2020 06:32 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/18/20 18:00 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021144
Sample ID: S-12R 1-2
Lab ID: 20021144-43
Collection Date: 2/17/2020 04:20 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**0.088**		**0.027**	**mg/Kg-dry**	1	2/23/2020 01:05 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**27**		**0.10**	**% of sample**	1	2/19/2020 02:31 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/21/20 09:43	Analyst: **JZB**
Phosphorus, Total	**460**		**140**	**mg/Kg-dry**	4	2/21/2020 02:10 PM
PH			**SW9045D**		Prep: EXTRACT 2/19/20 15:38	Analyst: **DNW**
pH	**8.51**		**0.100**	**s.u.**	1	2/20/2020 08:00 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-12R 2-3
Collection Date: 2/17/2020 03:25 PM

Work Order: 20021144
Lab ID: 20021144-44
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/21/20 16:57		Analyst: **RM**
Aroclor 1016	ND		86	µg/Kg-dry	1	2/24/2020 05:14 PM
Aroclor 1221	ND		86	µg/Kg-dry	1	2/24/2020 05:14 PM
Aroclor 1232	ND		86	µg/Kg-dry	1	2/24/2020 05:14 PM
Aroclor 1242	ND		86	µg/Kg-dry	1	2/24/2020 05:14 PM
Aroclor 1248	ND		86	µg/Kg-dry	1	2/24/2020 05:14 PM
Aroclor 1254	ND		86	µg/Kg-dry	1	2/24/2020 05:14 PM
Aroclor 1260	ND		86	µg/Kg-dry	1	2/24/2020 05:14 PM
Aroclor 1262	ND		86	µg/Kg-dry	1	2/24/2020 05:14 PM
Aroclor 1268	ND		86	µg/Kg-dry	1	2/24/2020 05:14 PM
Surr: Decachlorobiphenyl	*47.7*		*40-140*	*%REC*	1	2/24/2020 05:14 PM
Surr: Tetrachloro-m-xylene	*60.8*		*45-124*	*%REC*	1	2/24/2020 05:14 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/21/20 16:19		Analyst: **RSH**
Mercury	ND		0.024	mg/Kg-dry	1	2/24/2020 04:28 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/20/20 14:50		Analyst: **STP**
Arsenic	**6.6**		**0.53**	**mg/Kg-dry**	1	2/20/2020 08:30 PM
Barium	**75**		**0.53**	**mg/Kg-dry**	1	2/20/2020 08:30 PM
Cadmium	ND		0.21	mg/Kg-dry	1	2/20/2020 08:30 PM
Chromium	**16**		**0.53**	**mg/Kg-dry**	1	2/20/2020 08:30 PM
Copper	**18**		**0.53**	**mg/Kg-dry**	1	2/20/2020 08:30 PM
Lead	**10**		**0.53**	**mg/Kg-dry**	1	2/20/2020 08:30 PM
Nickel	**28**		**5.3**	**mg/Kg-dry**	10	2/21/2020 05:40 PM
Selenium	ND		0.53	mg/Kg-dry	1	2/20/2020 08:30 PM
Silver	ND		0.53	mg/Kg-dry	1	2/20/2020 08:30 PM
Thorium	**4.8**		**0.53**	**mg/Kg-dry**	1	2/20/2020 08:30 PM
Uranium	**2.1**		**0.53**	**mg/Kg-dry**	1	2/20/2020 08:30 PM
Zinc	**51**		**1.1**	**mg/Kg-dry**	1	2/20/2020 08:30 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/22/20 17:00		Analyst: **EEW**
1-Methylnaphthalene	ND		5.1	µg/Kg-dry	1	2/24/2020 05:09 PM
2-Chloronaphthalene	ND		5.1	µg/Kg-dry	1	2/24/2020 05:09 PM
2-Methylnaphthalene	ND		5.1	µg/Kg-dry	1	2/24/2020 05:09 PM
Acenaphthene	ND		5.1	µg/Kg-dry	1	2/24/2020 05:09 PM
Acenaphthylene	ND		5.1	µg/Kg-dry	1	2/24/2020 05:09 PM
Anthracene	ND		5.1	µg/Kg-dry	1	2/24/2020 05:09 PM
Benzo(a)anthracene	ND		5.1	µg/Kg-dry	1	2/24/2020 05:09 PM
Benzo(a)pyrene	ND		5.1	µg/Kg-dry	1	2/24/2020 05:09 PM
Benzo(b)fluoranthene	ND		5.1	µg/Kg-dry	1	2/24/2020 05:09 PM
Benzo(g,h,i)perylene	ND		5.1	µg/Kg-dry	1	2/24/2020 05:09 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-12R 2-3 **Lab ID:** 20021144-44
Collection Date: 2/17/2020 03:25 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.1	µg/Kg-dry	1	2/24/2020 05:09 PM
Chrysene	ND		5.1	µg/Kg-dry	1	2/24/2020 05:09 PM
Dibenzo(a,h)anthracene	ND		5.1	µg/Kg-dry	1	2/24/2020 05:09 PM
Fluoranthene	ND		5.1	µg/Kg-dry	1	2/24/2020 05:09 PM
Fluorene	ND		5.1	µg/Kg-dry	1	2/24/2020 05:09 PM
Indeno(1,2,3-cd)pyrene	ND		5.1	µg/Kg-dry	1	2/24/2020 05:09 PM
Naphthalene	ND		5.1	µg/Kg-dry	1	2/24/2020 05:09 PM
Phenanthrene	**18**		**5.1**	**µg/Kg-dry**	1	2/24/2020 05:09 PM
Pyrene	**5.2**		**5.1**	**µg/Kg-dry**	1	2/24/2020 05:09 PM
Surr: 2-Fluorobiphenyl	*81.5*		*20-140*	*%REC*	1	2/24/2020 05:09 PM
Surr: 4-Terphenyl-d14	*95.5*		*22-172*	*%REC*	1	2/24/2020 05:09 PM
Surr: Nitrobenzene-d5	*105*		*28-140*	*%REC*	1	2/24/2020 05:09 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/18/20 14:08		Analyst: **BG**
1,1,1,2-Tetrachloroethane	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
1,1,1-Trichloroethane	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
1,1,2,2-Tetrachloroethane	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
1,1,2-Trichloroethane	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
1,1,2-Trichlorotrifluoroethane	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
1,1-Dichloroethane	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
1,1-Dichloroethene	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
1,2,3-Trichloropropane	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
1,2,4-Trichlorobenzene	ND		170	µg/Kg-dry	1	2/21/2020 06:54 AM
1,2,4-Trimethylbenzene	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
1,2-Dibromo-3-chloropropane	ND		170	µg/Kg-dry	1	2/21/2020 06:54 AM
1,2-Dibromoethane	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
1,2-Dichlorobenzene	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
1,2-Dichloroethane	ND		170	µg/Kg-dry	1	2/21/2020 06:54 AM
1,2-Dichloropropane	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
1,3,5-Trimethylbenzene	ND		170	µg/Kg-dry	1	2/21/2020 06:54 AM
1,3-Dichlorobenzene	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
1,4-Dichlorobenzene	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
2-Butanone	ND		340	µg/Kg-dry	1	2/21/2020 06:54 AM
2-Hexanone	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
2-Methylnaphthalene	ND		170	µg/Kg-dry	1	2/21/2020 06:54 AM
4-Methyl-2-pentanone	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
Acetone	ND		170	µg/Kg-dry	1	2/21/2020 06:54 AM
Acrylonitrile	ND		170	µg/Kg-dry	1	2/21/2020 06:54 AM
Benzene	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
Bromochloromethane	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
Bromodichloromethane	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-12R 2-3 **Lab ID:** 20021144-44
Collection Date: 2/17/2020 03:25 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
Bromomethane	ND		170	µg/Kg-dry	1	2/21/2020 06:54 AM
Carbon disulfide	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
Carbon tetrachloride	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
Chlorobenzene	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
Chloroethane	ND		170	µg/Kg-dry	1	2/21/2020 06:54 AM
Chloroform	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
Chloromethane	ND		170	µg/Kg-dry	1	2/21/2020 06:54 AM
cis-1,2-Dichloroethene	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
cis-1,3-Dichloropropene	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
Dibromochloromethane	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
Dibromomethane	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
Dichlorodifluoromethane	ND		170	µg/Kg-dry	1	2/21/2020 06:54 AM
Diethyl ether	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
Ethylbenzene	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
Hexachloroethane	ND		170	µg/Kg-dry	1	2/21/2020 06:54 AM
Isopropylbenzene	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
m,p-Xylene	ND		100	µg/Kg-dry	1	2/21/2020 06:54 AM
Methyl iodide	ND		860	µg/Kg-dry	1	2/21/2020 06:54 AM
Methyl tert-butyl ether	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
Methylene chloride	ND		430	µg/Kg-dry	1	2/21/2020 06:54 AM
Naphthalene	ND		170	µg/Kg-dry	1	2/21/2020 06:54 AM
n-Propylbenzene	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
o-Xylene	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
Styrene	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
Tetrachloroethene	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
Toluene	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
trans-1,2-Dichloroethene	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
trans-1,3-Dichloropropene	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
trans-1,4-Dichloro-2-butene	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
Trichloroethene	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
Trichlorofluoromethane	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
Vinyl acetate	ND		430	µg/Kg-dry	1	2/21/2020 06:54 AM
Vinyl chloride	ND		52	µg/Kg-dry	1	2/21/2020 06:54 AM
Xylenes, Total	ND		150	µg/Kg-dry	1	2/21/2020 06:54 AM
Surr: 1,2-Dichloroethane-d4	*95.4*		*70-130*	*%REC*	1	2/21/2020 06:54 AM
Surr: 4-Bromofluorobenzene	*97.6*		*70-130*	*%REC*	1	2/21/2020 06:54 AM
Surr: Dibromofluoromethane	*91.9*		*70-130*	*%REC*	1	2/21/2020 06:54 AM
Surr: Toluene-d8	*96.0*		*70-130*	*%REC*	1	2/21/2020 06:54 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/18/20 18:30 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021144
Sample ID: S-12R 2-3
Lab ID: 20021144-44
Collection Date: 2/17/2020 03:25 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor		Date Analyzed
Biochemical Oxygen Demand	**0.085**		**0.026**	**mg/Kg-dry**	1		2/23/2020 01:05 PM
MOISTURE			**SW3550C**				Analyst: **KTP**
Moisture	**23**		**0.10**	**% of sample**	1		2/19/2020 02:31 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0	2/21/20 09:43	Analyst: **JZB**
Phosphorus, Total	**450**		**120**	**mg/Kg-dry**	4		2/21/2020 02:11 PM
PH			**SW9045D**		Prep: EXTRACT	2/19/20 15:38	Analyst: **DNW**
pH	**8.26**		**0.100**	**s.u.**	1		2/20/2020 08:00 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-12R 3-4 **Lab ID:** 20021144-45
Collection Date: 2/17/2020 03:30 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/21/20 16:57		Analyst: **RM**
Aroclor 1016	ND		79	µg/Kg-dry	1	2/24/2020 05:31 PM
Aroclor 1221	ND		79	µg/Kg-dry	1	2/24/2020 05:31 PM
Aroclor 1232	ND		79	µg/Kg-dry	1	2/24/2020 05:31 PM
Aroclor 1242	ND		79	µg/Kg-dry	1	2/24/2020 05:31 PM
Aroclor 1248	ND		79	µg/Kg-dry	1	2/24/2020 05:31 PM
Aroclor 1254	ND		79	µg/Kg-dry	1	2/24/2020 05:31 PM
Aroclor 1260	ND		79	µg/Kg-dry	1	2/24/2020 05:31 PM
Aroclor 1262	ND		79	µg/Kg-dry	1	2/24/2020 05:31 PM
Aroclor 1268	ND		79	µg/Kg-dry	1	2/24/2020 05:31 PM
Surr: Decachlorobiphenyl	*48.2*		*40-140*	*%REC*	1	2/24/2020 05:31 PM
Surr: Tetrachloro-m-xylene	*59.0*		*45-124*	*%REC*	1	2/24/2020 05:31 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/21/20 16:19		Analyst: **RSH**
Mercury	ND		0.022	mg/Kg-dry	1	2/24/2020 04:30 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/20/20 14:50		Analyst: **STP**
Arsenic	**6.1**		**0.50**	**mg/Kg-dry**	1	2/20/2020 08:32 PM
Barium	**77**		**0.50**	**mg/Kg-dry**	1	2/20/2020 08:32 PM
Cadmium	ND		0.20	mg/Kg-dry	1	2/20/2020 08:32 PM
Chromium	**15**		**0.50**	**mg/Kg-dry**	1	2/20/2020 08:32 PM
Copper	**23**		**5.0**	**mg/Kg-dry**	10	2/21/2020 05:41 PM
Lead	**13**		**0.50**	**mg/Kg-dry**	1	2/20/2020 08:32 PM
Nickel	**26**		**5.0**	**mg/Kg-dry**	10	2/21/2020 05:41 PM
Selenium	ND		0.50	mg/Kg-dry	1	2/20/2020 08:32 PM
Silver	ND		0.50	mg/Kg-dry	1	2/20/2020 08:32 PM
Thorium	**4.6**		**0.50**	**mg/Kg-dry**	1	2/20/2020 08:32 PM
Uranium	**1.9**		**0.50**	**mg/Kg-dry**	1	2/20/2020 08:32 PM
Zinc	**46**		**1.0**	**mg/Kg-dry**	1	2/20/2020 08:32 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/22/20 17:00		Analyst: **EEW**
1-Methylnaphthalene	ND		4.9	µg/Kg-dry	1	2/24/2020 05:25 PM
2-Chloronaphthalene	ND		4.9	µg/Kg-dry	1	2/24/2020 05:25 PM
2-Methylnaphthalene	ND		4.9	µg/Kg-dry	1	2/24/2020 05:25 PM
Acenaphthene	ND		4.9	µg/Kg-dry	1	2/24/2020 05:25 PM
Acenaphthylene	ND		4.9	µg/Kg-dry	1	2/24/2020 05:25 PM
Anthracene	ND		4.9	µg/Kg-dry	1	2/24/2020 05:25 PM
Benzo(a)anthracene	ND		4.9	µg/Kg-dry	1	2/24/2020 05:25 PM
Benzo(a)pyrene	ND		4.9	µg/Kg-dry	1	2/24/2020 05:25 PM
Benzo(b)fluoranthene	ND		4.9	µg/Kg-dry	1	2/24/2020 05:25 PM
Benzo(g,h,i)perylene	ND		4.9	µg/Kg-dry	1	2/24/2020 05:25 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-12R 3-4 **Lab ID:** 20021144-45
Collection Date: 2/17/2020 03:30 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		4.9	µg/Kg-dry	1	2/24/2020 05:25 PM
Chrysene	ND		4.9	µg/Kg-dry	1	2/24/2020 05:25 PM
Dibenzo(a,h)anthracene	ND		4.9	µg/Kg-dry	1	2/24/2020 05:25 PM
Fluoranthene	ND		4.9	µg/Kg-dry	1	2/24/2020 05:25 PM
Fluorene	ND		4.9	µg/Kg-dry	1	2/24/2020 05:25 PM
Indeno(1,2,3-cd)pyrene	ND		4.9	µg/Kg-dry	1	2/24/2020 05:25 PM
Naphthalene	ND		4.9	µg/Kg-dry	1	2/24/2020 05:25 PM
Phenanthrene	**7.7**		**4.9**	**µg/Kg-dry**	1	2/24/2020 05:25 PM
Pyrene	ND		4.9	µg/Kg-dry	1	2/24/2020 05:25 PM
Surr: 2-Fluorobiphenyl	*70.3*		*20-140*	*%REC*	1	2/24/2020 05:25 PM
Surr: 4-Terphenyl-d14	*82.0*		*22-172*	*%REC*	1	2/24/2020 05:25 PM
Surr: Nitrobenzene-d5	*91.3*		*28-140*	*%REC*	1	2/24/2020 05:25 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/18/20 14:08		Analyst: **JNS**
1,1,1,2-Tetrachloroethane	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
1,1,1-Trichloroethane	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
1,1,2,2-Tetrachloroethane	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
1,1,2-Trichloroethane	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
1,1,2-Trichlorotrifluoroethane	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
1,1-Dichloroethane	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
1,1-Dichloroethene	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
1,2,3-Trichloropropane	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
1,2,4-Trichlorobenzene	ND		140	µg/Kg-dry	1	2/22/2020 04:57 AM
1,2,4-Trimethylbenzene	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
1,2-Dibromo-3-chloropropane	ND		140	µg/Kg-dry	1	2/22/2020 04:57 AM
1,2-Dibromoethane	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
1,2-Dichlorobenzene	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
1,2-Dichloroethane	ND		140	µg/Kg-dry	1	2/22/2020 04:57 AM
1,2-Dichloropropane	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
1,3,5-Trimethylbenzene	ND		140	µg/Kg-dry	1	2/22/2020 04:57 AM
1,3-Dichlorobenzene	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
1,4-Dichlorobenzene	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
2-Butanone	ND		280	µg/Kg-dry	1	2/22/2020 04:57 AM
2-Hexanone	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
2-Methylnaphthalene	ND		140	µg/Kg-dry	1	2/22/2020 04:57 AM
4-Methyl-2-pentanone	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
Acetone	ND		140	µg/Kg-dry	1	2/22/2020 04:57 AM
Acrylonitrile	ND		140	µg/Kg-dry	1	2/22/2020 04:57 AM
Benzene	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
Bromochloromethane	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
Bromodichloromethane	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-12R 3-4 **Lab ID:** 20021144-45
Collection Date: 2/17/2020 03:30 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
Bromomethane	ND		140	µg/Kg-dry	1	2/22/2020 04:57 AM
Carbon disulfide	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
Carbon tetrachloride	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
Chlorobenzene	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
Chloroethane	ND		140	µg/Kg-dry	1	2/22/2020 04:57 AM
Chloroform	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
Chloromethane	ND		140	µg/Kg-dry	1	2/22/2020 04:57 AM
cis-1,2-Dichloroethene	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
cis-1,3-Dichloropropene	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
Dibromochloromethane	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
Dibromomethane	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
Dichlorodifluoromethane	ND		140	µg/Kg-dry	1	2/22/2020 04:57 AM
Diethyl ether	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
Ethylbenzene	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
Hexachloroethane	ND		140	µg/Kg-dry	1	2/22/2020 04:57 AM
Isopropylbenzene	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
m,p-Xylene	ND		84	µg/Kg-dry	1	2/22/2020 04:57 AM
Methyl iodide	ND		700	µg/Kg-dry	1	2/22/2020 04:57 AM
Methyl tert-butyl ether	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
Methylene chloride	ND		350	µg/Kg-dry	1	2/22/2020 04:57 AM
Naphthalene	ND		140	µg/Kg-dry	1	2/22/2020 04:57 AM
n-Propylbenzene	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
o-Xylene	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
Styrene	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
Tetrachloroethene	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
Toluene	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
trans-1,2-Dichloroethene	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
trans-1,3-Dichloropropene	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
trans-1,4-Dichloro-2-butene	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
Trichloroethene	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
Trichlorofluoromethane	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
Vinyl acetate	ND		350	µg/Kg-dry	1	2/22/2020 04:57 AM
Vinyl chloride	ND		42	µg/Kg-dry	1	2/22/2020 04:57 AM
Xylenes, Total	ND		130	µg/Kg-dry	1	2/22/2020 04:57 AM
Surr: 1,2-Dichloroethane-d4	*107*		*70-130*	*%REC*	1	2/22/2020 04:57 AM
Surr: 4-Bromofluorobenzene	*94.8*		*70-130*	*%REC*	1	2/22/2020 04:57 AM
Surr: Dibromofluoromethane	*95.6*		*70-130*	*%REC*	1	2/22/2020 04:57 AM
Surr: Toluene-d8	*109*		*70-130*	*%REC*	1	2/22/2020 04:57 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/18/20 18:30 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021144
Sample ID: S-12R 3-4
Lab ID: 20021144-45
Collection Date: 2/17/2020 03:30 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	ND		0.025	mg/Kg-dry	1	2/23/2020 01:05 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**18**		**0.10**	**% of sample**	1	2/19/2020 02:31 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/21/20 09:43	Analyst: **JZB**
Phosphorus, Total	**400**		**120**	**mg/Kg-dry**	4	2/21/2020 02:12 PM
PH			**SW9045D**		Prep: EXTRACT 2/19/20 15:38	Analyst: **DNW**
pH	**8.28**		**0.100**	**s.u.**	1	2/20/2020 08:00 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-12R 4-5
Collection Date: 2/17/2020 03:35 PM

Work Order: 20021144
Lab ID: 20021144-46
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/21/20 16:57		Analyst: **RM**
Aroclor 1016	ND		78	µg/Kg-dry	1	2/24/2020 06:23 PM
Aroclor 1221	ND		78	µg/Kg-dry	1	2/24/2020 06:23 PM
Aroclor 1232	ND		78	µg/Kg-dry	1	2/24/2020 06:23 PM
Aroclor 1242	ND		78	µg/Kg-dry	1	2/24/2020 06:23 PM
Aroclor 1248	ND		78	µg/Kg-dry	1	2/24/2020 06:23 PM
Aroclor 1254	ND		78	µg/Kg-dry	1	2/24/2020 06:23 PM
Aroclor 1260	ND		78	µg/Kg-dry	1	2/24/2020 06:23 PM
Aroclor 1262	ND		78	µg/Kg-dry	1	2/24/2020 06:23 PM
Aroclor 1268	ND		78	µg/Kg-dry	1	2/24/2020 06:23 PM
Surr: Decachlorobiphenyl	*26.5*	S	*40-140*	*%REC*	1	2/24/2020 06:23 PM
Surr: Tetrachloro-m-xylene	*50.0*		*45-124*	*%REC*	1	2/24/2020 06:23 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/21/20 16:19		Analyst: **RSH**
Mercury	ND		0.019	mg/Kg-dry	1	2/24/2020 04:32 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/20/20 14:50		Analyst: **STP**
Arsenic	**8.6**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:34 PM
Barium	**74**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:34 PM
Cadmium	**0.50**		**0.15**	**mg/Kg-dry**	1	2/20/2020 08:34 PM
Chromium	**14**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:34 PM
Copper	**70**		**3.9**	**mg/Kg-dry**	10	2/21/2020 05:43 PM
Lead	**27**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:34 PM
Nickel	**40**		**3.9**	**mg/Kg-dry**	10	2/21/2020 05:43 PM
Selenium	**0.59**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:34 PM
Silver	ND		0.39	mg/Kg-dry	1	2/20/2020 08:34 PM
Thorium	**4.7**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:34 PM
Uranium	**2.4**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:34 PM
Zinc	**90**		**0.77**	**mg/Kg-dry**	1	2/20/2020 08:34 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/22/20 17:00		Analyst: **EEW**
1-Methylnaphthalene	ND		5.0	µg/Kg-dry	1	2/24/2020 05:41 PM
2-Chloronaphthalene	ND		5.0	µg/Kg-dry	1	2/24/2020 05:41 PM
2-Methylnaphthalene	ND		5.0	µg/Kg-dry	1	2/24/2020 05:41 PM
Acenaphthene	ND		5.0	µg/Kg-dry	1	2/24/2020 05:41 PM
Acenaphthylene	ND		5.0	µg/Kg-dry	1	2/24/2020 05:41 PM
Anthracene	ND		5.0	µg/Kg-dry	1	2/24/2020 05:41 PM
Benzo(a)anthracene	ND		5.0	µg/Kg-dry	1	2/24/2020 05:41 PM
Benzo(a)pyrene	ND		5.0	µg/Kg-dry	1	2/24/2020 05:41 PM
Benzo(b)fluoranthene	ND		5.0	µg/Kg-dry	1	2/24/2020 05:41 PM
Benzo(g,h,i)perylene	ND		5.0	µg/Kg-dry	1	2/24/2020 05:41 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-12R 4-5 **Lab ID:** 20021144-46
Collection Date: 2/17/2020 03:35 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.0	µg/Kg-dry	1	2/24/2020 05:41 PM
Chrysene	ND		5.0	µg/Kg-dry	1	2/24/2020 05:41 PM
Dibenzo(a,h)anthracene	ND		5.0	µg/Kg-dry	1	2/24/2020 05:41 PM
Fluoranthene	ND		5.0	µg/Kg-dry	1	2/24/2020 05:41 PM
Fluorene	ND		5.0	µg/Kg-dry	1	2/24/2020 05:41 PM
Indeno(1,2,3-cd)pyrene	ND		5.0	µg/Kg-dry	1	2/24/2020 05:41 PM
Naphthalene	ND		5.0	µg/Kg-dry	1	2/24/2020 05:41 PM
Phenanthrene	**11**		**5.0**	**µg/Kg-dry**	1	2/24/2020 05:41 PM
Pyrene	ND		5.0	µg/Kg-dry	1	2/24/2020 05:41 PM
Surr: 2-Fluorobiphenyl	*86.9*		*20-140*	*%REC*	1	2/24/2020 05:41 PM
Surr: 4-Terphenyl-d14	*107*		*22-172*	*%REC*	1	2/24/2020 05:41 PM
Surr: Nitrobenzene-d5	*109*		*28-140*	*%REC*	1	2/24/2020 05:41 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/18/20 14:08		Analyst: **BG**
1,1,1,2-Tetrachloroethane	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
1,1,1-Trichloroethane	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
1,1,2,2-Tetrachloroethane	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
1,1,2-Trichloroethane	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
1,1,2-Trichlorotrifluoroethane	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
1,1-Dichloroethane	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
1,1-Dichloroethene	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
1,2,3-Trichloropropane	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
1,2,4-Trichlorobenzene	ND		130	µg/Kg-dry	1	2/21/2020 07:16 AM
1,2,4-Trimethylbenzene	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
1,2-Dibromo-3-chloropropane	ND		130	µg/Kg-dry	1	2/21/2020 07:16 AM
1,2-Dibromoethane	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
1,2-Dichlorobenzene	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
1,2-Dichloroethane	ND		130	µg/Kg-dry	1	2/21/2020 07:16 AM
1,2-Dichloropropane	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
1,3,5-Trimethylbenzene	ND		130	µg/Kg-dry	1	2/21/2020 07:16 AM
1,3-Dichlorobenzene	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
1,4-Dichlorobenzene	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
2-Butanone	ND		260	µg/Kg-dry	1	2/21/2020 07:16 AM
2-Hexanone	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
2-Methylnaphthalene	ND		130	µg/Kg-dry	1	2/21/2020 07:16 AM
4-Methyl-2-pentanone	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
Acetone	ND		130	µg/Kg-dry	1	2/21/2020 07:16 AM
Acrylonitrile	ND		130	µg/Kg-dry	1	2/21/2020 07:16 AM
Benzene	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
Bromochloromethane	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
Bromodichloromethane	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: S-12R 4-5 **Lab ID:** 20021144-46
Collection Date: 2/17/2020 03:35 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
Bromomethane	ND		130	µg/Kg-dry	1	2/21/2020 07:16 AM
Carbon disulfide	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
Carbon tetrachloride	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
Chlorobenzene	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
Chloroethane	ND		130	µg/Kg-dry	1	2/21/2020 07:16 AM
Chloroform	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
Chloromethane	ND		130	µg/Kg-dry	1	2/21/2020 07:16 AM
cis-1,2-Dichloroethene	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
cis-1,3-Dichloropropene	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
Dibromochloromethane	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
Dibromomethane	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
Dichlorodifluoromethane	ND		130	µg/Kg-dry	1	2/21/2020 07:16 AM
Diethyl ether	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
Ethylbenzene	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
Hexachloroethane	ND		130	µg/Kg-dry	1	2/21/2020 07:16 AM
Isopropylbenzene	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
m,p-Xylene	ND		77	µg/Kg-dry	1	2/21/2020 07:16 AM
Methyl iodide	ND		640	µg/Kg-dry	1	2/21/2020 07:16 AM
Methyl tert-butyl ether	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
Methylene chloride	ND		320	µg/Kg-dry	1	2/21/2020 07:16 AM
Naphthalene	ND		130	µg/Kg-dry	1	2/21/2020 07:16 AM
n-Propylbenzene	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
o-Xylene	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
Styrene	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
Tetrachloroethene	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
Toluene	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
trans-1,2-Dichloroethene	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
trans-1,3-Dichloropropene	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
trans-1,4-Dichloro-2-butene	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
Trichloroethene	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
Trichlorofluoromethane	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
Vinyl acetate	ND		320	µg/Kg-dry	1	2/21/2020 07:16 AM
Vinyl chloride	ND		39	µg/Kg-dry	1	2/21/2020 07:16 AM
Xylenes, Total	ND		120	µg/Kg-dry	1	2/21/2020 07:16 AM
Surr: 1,2-Dichloroethane-d4	*95.2*		*70-130*	*%REC*	1	2/21/2020 07:16 AM
Surr: 4-Bromofluorobenzene	*97.0*		*70-130*	*%REC*	1	2/21/2020 07:16 AM
Surr: Dibromofluoromethane	*91.0*		*70-130*	*%REC*	1	2/21/2020 07:16 AM
Surr: Toluene-d8	*95.7*		*70-130*	*%REC*	1	2/21/2020 07:16 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/18/20 18:00 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021144
Sample ID: S-12R 4-5
Lab ID: 20021144-46
Collection Date: 2/17/2020 03:35 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**0.055**		**0.024**	**mg/Kg-dry**	1	2/23/2020 01:05 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**18**		**0.10**	**% of sample**	1	2/20/2020 02:49 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/21/20 09:43	Analyst: **JZB**
Phosphorus, Total	**430**		**130**	**mg/Kg-dry**	4	2/21/2020 02:13 PM
PH			**SW9045D**		Prep: EXTRACT 2/19/20 15:38	Analyst: **DNW**
pH	**8.25**		**0.100**	**s.u.**	1	2/20/2020 08:00 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: A-8 **Lab ID:** 20021144-47
Collection Date: 2/17/2020 **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/21/20 16:57		Analyst: **RM**
Aroclor 1016	ND		82	µg/Kg-dry	1	2/24/2020 06:39 PM
Aroclor 1221	ND		82	µg/Kg-dry	1	2/24/2020 06:39 PM
Aroclor 1232	ND		82	µg/Kg-dry	1	2/24/2020 06:39 PM
Aroclor 1242	ND		82	µg/Kg-dry	1	2/24/2020 06:39 PM
Aroclor 1248	ND		82	µg/Kg-dry	1	2/24/2020 06:39 PM
Aroclor 1254	ND		82	µg/Kg-dry	1	2/24/2020 06:39 PM
Aroclor 1260	ND		82	µg/Kg-dry	1	2/24/2020 06:39 PM
Aroclor 1262	ND		82	µg/Kg-dry	1	2/24/2020 06:39 PM
Aroclor 1268	ND		82	µg/Kg-dry	1	2/24/2020 06:39 PM
Surr: Decachlorobiphenyl	*49.4*		*40-140*	*%REC*	1	2/24/2020 06:39 PM
Surr: Tetrachloro-m-xylene	*63.6*		*45-124*	*%REC*	1	2/24/2020 06:39 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/24/20 12:26		Analyst: **RSH**
Mercury	**0.073**		**0.020**	**mg/Kg-dry**	1	2/24/2020 03:15 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/20/20 14:50		Analyst: **STP**
Arsenic	**5.1**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:36 PM
Barium	**61**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:36 PM
Cadmium	ND		0.16	mg/Kg-dry	1	2/20/2020 08:36 PM
Chromium	**14**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:36 PM
Copper	**25**		**3.9**	**mg/Kg-dry**	10	2/21/2020 05:45 PM
Lead	**12**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:36 PM
Nickel	**24**		**3.9**	**mg/Kg-dry**	10	2/21/2020 05:45 PM
Selenium	ND		0.39	mg/Kg-dry	1	2/20/2020 08:36 PM
Silver	ND		0.39	mg/Kg-dry	1	2/20/2020 08:36 PM
Thorium	**3.9**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:36 PM
Uranium	**1.7**		**0.39**	**mg/Kg-dry**	1	2/20/2020 08:36 PM
Zinc	**42**		**0.78**	**mg/Kg-dry**	1	2/20/2020 08:36 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/22/20 17:00		Analyst: **EEW**
1-Methylnaphthalene	**35**		**5.1**	**µg/Kg-dry**	1	2/24/2020 05:56 PM
2-Chloronaphthalene	ND		5.1	µg/Kg-dry	1	2/24/2020 05:56 PM
2-Methylnaphthalene	**46**		**5.1**	**µg/Kg-dry**	1	2/24/2020 05:56 PM
Acenaphthene	**160**		**5.1**	**µg/Kg-dry**	1	2/24/2020 05:56 PM
Acenaphthylene	**34**		**5.1**	**µg/Kg-dry**	1	2/24/2020 05:56 PM
Anthracene	**350**		**5.1**	**µg/Kg-dry**	1	2/24/2020 05:56 PM
Benzo(a)anthracene	**360**		**5.1**	**µg/Kg-dry**	1	2/24/2020 05:56 PM
Benzo(a)pyrene	**200**		**5.1**	**µg/Kg-dry**	1	2/24/2020 05:56 PM
Benzo(b)fluoranthene	**210**		**5.1**	**µg/Kg-dry**	1	2/24/2020 05:56 PM
Benzo(g,h,i)perylene	**60**		**5.1**	**µg/Kg-dry**	1	2/24/2020 05:56 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: A-8 **Lab ID:** 20021144-47
Collection Date: 2/17/2020 **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**83**		**5.1**	**µg/Kg-dry**	1	2/24/2020 05:56 PM
Chrysene	**290**		**5.1**	**µg/Kg-dry**	1	2/24/2020 05:56 PM
Dibenzo(a,h)anthracene	**13**		**5.1**	**µg/Kg-dry**	1	2/24/2020 05:56 PM
Fluoranthene	**820**		**5.1**	**µg/Kg-dry**	1	2/24/2020 05:56 PM
Fluorene	**220**		**5.1**	**µg/Kg-dry**	1	2/24/2020 05:56 PM
Indeno(1,2,3-cd)pyrene	**76**		**5.1**	**µg/Kg-dry**	1	2/24/2020 05:56 PM
Naphthalene	**120**		**5.1**	**µg/Kg-dry**	1	2/24/2020 05:56 PM
Phenanthrene	**950**		**5.1**	**µg/Kg-dry**	1	2/24/2020 05:56 PM
Pyrene	**910**		**5.1**	**µg/Kg-dry**	1	2/24/2020 05:56 PM
Surr: 2-Fluorobiphenyl	*73.0*		*20-140*	*%REC*	1	2/24/2020 05:56 PM
Surr: 4-Terphenyl-d14	*77.1*		*22-172*	*%REC*	1	2/24/2020 05:56 PM
Surr: Nitrobenzene-d5	*94.4*		*28-140*	*%REC*	1	2/24/2020 05:56 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/19/20 12:26		Analyst: **BG**
1,1,1,2-Tetrachloroethane	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
1,1,1-Trichloroethane	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
1,1,2,2-Tetrachloroethane	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
1,1,2-Trichloroethane	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
1,1,2-Trichlorotrifluoroethane	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
1,1-Dichloroethane	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
1,1-Dichloroethene	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
1,2,3-Trichloropropane	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
1,2,4-Trichlorobenzene	ND		270	µg/Kg-dry	1	2/21/2020 07:38 AM
1,2,4-Trimethylbenzene	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
1,2-Dibromo-3-chloropropane	ND		270	µg/Kg-dry	1	2/21/2020 07:38 AM
1,2-Dibromoethane	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
1,2-Dichlorobenzene	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
1,2-Dichloroethane	ND		270	µg/Kg-dry	1	2/21/2020 07:38 AM
1,2-Dichloropropane	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
1,3,5-Trimethylbenzene	ND		270	µg/Kg-dry	1	2/21/2020 07:38 AM
1,3-Dichlorobenzene	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
1,4-Dichlorobenzene	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
2-Butanone	ND		530	µg/Kg-dry	1	2/21/2020 07:38 AM
2-Hexanone	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
2-Methylnaphthalene	ND		270	µg/Kg-dry	1	2/21/2020 07:38 AM
4-Methyl-2-pentanone	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
Acetone	ND		270	µg/Kg-dry	1	2/21/2020 07:38 AM
Acrylonitrile	ND		270	µg/Kg-dry	1	2/21/2020 07:38 AM
Benzene	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
Bromochloromethane	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
Bromodichloromethane	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: A-8 **Lab ID:** 20021144-47
Collection Date: 2/17/2020 **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
Bromomethane	ND		270	µg/Kg-dry	1	2/21/2020 07:38 AM
Carbon disulfide	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
Carbon tetrachloride	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
Chlorobenzene	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
Chloroethane	ND		270	µg/Kg-dry	1	2/21/2020 07:38 AM
Chloroform	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
Chloromethane	ND		270	µg/Kg-dry	1	2/21/2020 07:38 AM
cis-1,2-Dichloroethene	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
cis-1,3-Dichloropropene	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
Dibromochloromethane	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
Dibromomethane	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
Dichlorodifluoromethane	ND		270	µg/Kg-dry	1	2/21/2020 07:38 AM
Diethyl ether	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
Ethylbenzene	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
Hexachloroethane	ND		270	µg/Kg-dry	1	2/21/2020 07:38 AM
Isopropylbenzene	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
m,p-Xylene	ND		160	µg/Kg-dry	1	2/21/2020 07:38 AM
Methyl iodide	ND		1,300	µg/Kg-dry	1	2/21/2020 07:38 AM
Methyl tert-butyl ether	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
Methylene chloride	ND		670	µg/Kg-dry	1	2/21/2020 07:38 AM
Naphthalene	ND		270	µg/Kg-dry	1	2/21/2020 07:38 AM
n-Propylbenzene	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
o-Xylene	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
Styrene	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
Tetrachloroethene	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
Toluene	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
trans-1,2-Dichloroethene	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
trans-1,3-Dichloropropene	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
trans-1,4-Dichloro-2-butene	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
Trichloroethene	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
Trichlorofluoromethane	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
Vinyl acetate	ND		670	µg/Kg-dry	1	2/21/2020 07:38 AM
Vinyl chloride	ND		80	µg/Kg-dry	1	2/21/2020 07:38 AM
Xylenes, Total	ND		240	µg/Kg-dry	1	2/21/2020 07:38 AM
Surr: 1,2-Dichloroethane-d4	*95.8*		*70-130*	*%REC*	1	2/21/2020 07:38 AM
Surr: 4-Bromofluorobenzene	*96.4*		*70-130*	*%REC*	1	2/21/2020 07:38 AM
Surr: Dibromofluoromethane	*93.9*		*70-130*	*%REC*	1	2/21/2020 07:38 AM
Surr: Toluene-d8	*99.2*		*70-130*	*%REC*	1	2/21/2020 07:38 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/18/20 17:35 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20021144
Sample ID: A-8
Lab ID: 20021144-47
Collection Date: 2/17/2020
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**0.28**		**0.025**	**mg/Kg-dry**	1	2/23/2020 01:05 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**19**		**0.10**	**% of sample**	1	2/20/2020 02:49 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/21/20 09:43	Analyst: **JZB**
Phosphorus, Total	**450**		**130**	**mg/Kg-dry**	4	2/21/2020 02:14 PM
PH			**SW9045D**		Prep: EXTRACT 2/19/20 15:38	Analyst: **DNW**
pH	**8.43**		**0.100**	**s.u.**	1	2/20/2020 08:00 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: A-9 **Lab ID:** 20021144-48
Collection Date: 2/17/2020 **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/21/20 16:57		Analyst: **RM**
Aroclor 1016	ND		87	µg/Kg-dry	1	2/24/2020 06:54 PM
Aroclor 1221	ND		87	µg/Kg-dry	1	2/24/2020 06:54 PM
Aroclor 1232	ND		87	µg/Kg-dry	1	2/24/2020 06:54 PM
Aroclor 1242	ND		87	µg/Kg-dry	1	2/24/2020 06:54 PM
Aroclor 1248	ND		87	µg/Kg-dry	1	2/24/2020 06:54 PM
Aroclor 1254	ND		87	µg/Kg-dry	1	2/24/2020 06:54 PM
Aroclor 1260	ND		87	µg/Kg-dry	1	2/24/2020 06:54 PM
Aroclor 1262	ND		87	µg/Kg-dry	1	2/24/2020 06:54 PM
Aroclor 1268	ND		87	µg/Kg-dry	1	2/24/2020 06:54 PM
Surr: Decachlorobiphenyl	*41.9*		*40-140*	*%REC*	1	2/24/2020 06:54 PM
Surr: Tetrachloro-m-xylene	*67.6*		*45-124*	*%REC*	1	2/24/2020 06:54 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/24/20 12:26		Analyst: **RSH**
Mercury	**0.026**		**0.024**	**mg/Kg-dry**	1	2/24/2020 03:23 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/20/20 14:50		Analyst: **STP**
Arsenic	**3.8**		**0.47**	**mg/Kg-dry**	1	2/20/2020 08:40 PM
Barium	**120**		**0.47**	**mg/Kg-dry**	1	2/20/2020 08:40 PM
Cadmium	ND		0.19	mg/Kg-dry	1	2/20/2020 08:40 PM
Chromium	**20**		**0.47**	**mg/Kg-dry**	1	2/20/2020 08:40 PM
Copper	**25**		**4.7**	**mg/Kg-dry**	10	2/21/2020 05:47 PM
Lead	**12**		**0.47**	**mg/Kg-dry**	1	2/20/2020 08:40 PM
Nickel	**31**		**4.7**	**mg/Kg-dry**	10	2/21/2020 05:47 PM
Selenium	ND		0.47	mg/Kg-dry	1	2/20/2020 08:40 PM
Silver	ND		0.47	mg/Kg-dry	1	2/20/2020 08:40 PM
Thorium	**5.4**		**0.47**	**mg/Kg-dry**	1	2/20/2020 08:40 PM
Uranium	**1.3**		**0.47**	**mg/Kg-dry**	1	2/20/2020 08:40 PM
Zinc	**69**		**0.95**	**mg/Kg-dry**	1	2/20/2020 08:40 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/22/20 17:00		Analyst: **EEW**
1-Methylnaphthalene	ND		5.5	µg/Kg-dry	1	2/24/2020 06:12 PM
2-Chloronaphthalene	ND		5.5	µg/Kg-dry	1	2/24/2020 06:12 PM
2-Methylnaphthalene	ND		5.5	µg/Kg-dry	1	2/24/2020 06:12 PM
Acenaphthene	ND		5.5	µg/Kg-dry	1	2/24/2020 06:12 PM
Acenaphthylene	ND		5.5	µg/Kg-dry	1	2/24/2020 06:12 PM
Anthracene	ND		5.5	µg/Kg-dry	1	2/24/2020 06:12 PM
Benzo(a)anthracene	ND		5.5	µg/Kg-dry	1	2/24/2020 06:12 PM
Benzo(a)pyrene	ND		5.5	µg/Kg-dry	1	2/24/2020 06:12 PM
Benzo(b)fluoranthene	ND		5.5	µg/Kg-dry	1	2/24/2020 06:12 PM
Benzo(g,h,i)perylene	ND		5.5	µg/Kg-dry	1	2/24/2020 06:12 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: A-9 **Lab ID:** 20021144-48
Collection Date: 2/17/2020 **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.5	µg/Kg-dry	1	2/24/2020 06:12 PM
Chrysene	ND		5.5	µg/Kg-dry	1	2/24/2020 06:12 PM
Dibenzo(a,h)anthracene	ND		5.5	µg/Kg-dry	1	2/24/2020 06:12 PM
Fluoranthene	ND		5.5	µg/Kg-dry	1	2/24/2020 06:12 PM
Fluorene	ND		5.5	µg/Kg-dry	1	2/24/2020 06:12 PM
Indeno(1,2,3-cd)pyrene	ND		5.5	µg/Kg-dry	1	2/24/2020 06:12 PM
Naphthalene	ND		5.5	µg/Kg-dry	1	2/24/2020 06:12 PM
Phenanthrene	**11**		**5.5**	**µg/Kg-dry**	1	2/24/2020 06:12 PM
Pyrene	ND		5.5	µg/Kg-dry	1	2/24/2020 06:12 PM
Surr: 2-Fluorobiphenyl	*72.6*		*20-140*	*%REC*	1	2/24/2020 06:12 PM
Surr: 4-Terphenyl-d14	*80.6*		*22-172*	*%REC*	1	2/24/2020 06:12 PM
Surr: Nitrobenzene-d5	*94.9*		*28-140*	*%REC*	1	2/24/2020 06:12 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/19/20 12:26		Analyst: **JNS**
1,1,1,2-Tetrachloroethane	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
1,1,1-Trichloroethane	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
1,1,2,2-Tetrachloroethane	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
1,1,2-Trichloroethane	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
1,1,2-Trichlorotrifluoroethane	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
1,1-Dichloroethane	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
1,1-Dichloroethene	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
1,2,3-Trichloropropane	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
1,2,4-Trichlorobenzene	ND		190	µg/Kg-dry	1	2/22/2020 05:19 AM
1,2,4-Trimethylbenzene	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
1,2-Dibromo-3-chloropropane	ND		190	µg/Kg-dry	1	2/22/2020 05:19 AM
1,2-Dibromoethane	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
1,2-Dichlorobenzene	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
1,2-Dichloroethane	ND		190	µg/Kg-dry	1	2/22/2020 05:19 AM
1,2-Dichloropropane	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
1,3,5-Trimethylbenzene	ND		190	µg/Kg-dry	1	2/22/2020 05:19 AM
1,3-Dichlorobenzene	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
1,4-Dichlorobenzene	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
2-Butanone	ND		390	µg/Kg-dry	1	2/22/2020 05:19 AM
2-Hexanone	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
2-Methylnaphthalene	ND		190	µg/Kg-dry	1	2/22/2020 05:19 AM
4-Methyl-2-pentanone	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
Acetone	ND		190	µg/Kg-dry	1	2/22/2020 05:19 AM
Acrylonitrile	ND		190	µg/Kg-dry	1	2/22/2020 05:19 AM
Benzene	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
Bromochloromethane	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
Bromodichloromethane	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20021144
Sample ID: A-9 **Lab ID:** 20021144-48
Collection Date: 2/17/2020 **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
Bromomethane	ND		190	µg/Kg-dry	1	2/22/2020 05:19 AM
Carbon disulfide	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
Carbon tetrachloride	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
Chlorobenzene	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
Chloroethane	ND		190	µg/Kg-dry	1	2/22/2020 05:19 AM
Chloroform	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
Chloromethane	ND		190	µg/Kg-dry	1	2/22/2020 05:19 AM
cis-1,2-Dichloroethene	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
cis-1,3-Dichloropropene	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
Dibromochloromethane	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
Dibromomethane	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
Dichlorodifluoromethane	ND		190	µg/Kg-dry	1	2/22/2020 05:19 AM
Diethyl ether	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
Ethylbenzene	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
Hexachloroethane	ND		190	µg/Kg-dry	1	2/22/2020 05:19 AM
Isopropylbenzene	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
m,p-Xylene	ND		120	µg/Kg-dry	1	2/22/2020 05:19 AM
Methyl iodide	ND		970	µg/Kg-dry	1	2/22/2020 05:19 AM
Methyl tert-butyl ether	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
Methylene chloride	ND		480	µg/Kg-dry	1	2/22/2020 05:19 AM
Naphthalene	ND		190	µg/Kg-dry	1	2/22/2020 05:19 AM
n-Propylbenzene	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
o-Xylene	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
Styrene	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
Tetrachloroethene	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
Toluene	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
trans-1,2-Dichloroethene	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
trans-1,3-Dichloropropene	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
trans-1,4-Dichloro-2-butene	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
Trichloroethene	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
Trichlorofluoromethane	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
Vinyl acetate	ND		480	µg/Kg-dry	1	2/22/2020 05:19 AM
Vinyl chloride	ND		58	µg/Kg-dry	1	2/22/2020 05:19 AM
Xylenes, Total	ND		170	µg/Kg-dry	1	2/22/2020 05:19 AM
Surr: 1,2-Dichloroethane-d4	*108*		*70-130*	*%REC*	1	2/22/2020 05:19 AM
Surr: 4-Bromofluorobenzene	*94.0*		*70-130*	*%REC*	1	2/22/2020 05:19 AM
Surr: Dibromofluoromethane	*99.6*		*70-130*	*%REC*	1	2/22/2020 05:19 AM
Surr: Toluene-d8	*107*		*70-130*	*%REC*	1	2/22/2020 05:19 AM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/18/20 17:35 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *03-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: A-9
Collection Date: 2/17/2020

Work Order: 20021144
Lab ID: 20021144-48
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	ND		0.027	mg/Kg-dry	1	2/23/2020 01:05 PM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**26**		**0.10**	**% of sample**	1	2/19/2020 03:19 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/21/20 09:43	Analyst: **JZB**
Phosphorus, Total	**470**		**130**	**mg/Kg-dry**	4	2/21/2020 02:15 PM
PH			**SW9045D**		Prep: EXTRACT 2/19/20 15:38	Analyst: **DNW**
pH	**8.64**		**0.100**	**s.u.**	1	2/20/2020 08:00 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 03-Mar-20

Client: PM Environmental

Work Order: 20021144

Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152167** Instrument ID **GC14** Method: **SW8082**

MBLK Sample ID: **PBLKS1-152167-152167** Units: **µg/Kg** Analysis Date: **2/19/2020 07:10 PM**

Client ID: Run ID: **GC14_200219A** SeqNo: **6260459** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	67								
Aroclor 1221	ND	67								
Aroclor 1232	ND	67								
Aroclor 1242	ND	67								
Aroclor 1248	ND	67								
Aroclor 1254	ND	67								
Aroclor 1260	ND	67								
Aroclor 1262	ND	67								
Aroclor 1268	ND	67								
Surr: Decachlorobiphenyl	*31.85*	0	*33.3*	0	*95.6*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*27.66*	0	*33.3*	0	*83*	*45-124*	0			

LCS Sample ID: **PLCSS1-152167-152167** Units: **µg/Kg** Analysis Date: **2/19/2020 07:26 PM**

Client ID: Run ID: **GC14_200219A** SeqNo: **6260460** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	741.2	67	833	0	89	50-130	0			
Aroclor 1260	819.9	67	833	0	98.4	50-130	0			
Surr: Decachlorobiphenyl	*33.06*	0	*33.3*	0	*99.3*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*29.65*	0	*33.3*	0	*89*	*45-124*	0			

MS Sample ID: **20021006-79B MS** Units: **µg/Kg** Analysis Date: **2/19/2020 07:41 PM**

Client ID: Run ID: **GC14_200219A** SeqNo: **6260461** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	730.7	65	809.1	0	90.3	40-140	0			
Aroclor 1260	743.5	65	809.1	0	91.9	40-140	0			
Surr: Decachlorobiphenyl	*22.5*	0	*32.34*	0	*69.6*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*23.49*	0	*32.34*	0	*72.6*	*45-124*	0			

MSD Sample ID: **20021006-79B MSD** Units: **µg/Kg** Analysis Date: **2/19/2020 07:57 PM**

Client ID: Run ID: **GC14_200219A** SeqNo: **6260462** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	775.9	66	824.1	0	94.1	40-140	730.7	5.99	50	
Aroclor 1260	771.7	66	824.1	0	93.6	40-140	743.5	3.73	50	
Surr: Decachlorobiphenyl	*20.19*	0	*32.94*	0	*61.3*	*40-140*	22.5	*10.8*	*50*	
Surr: Tetrachloro-m-xylene	*23.74*	0	*32.94*	0	*72.1*	*45-124*	23.49	*1.04*	*50*	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152167** Instrument ID **GC14** Method: **SW8082**

The following samples were analyzed in this batch:

20021144-26B	20021144-27B	20021144-28B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152249** Instrument ID **GC14** Method: **SW8082**

MBLK Sample ID: **PBLKS1-152249-152249** Units: **µg/Kg** Analysis Date: **2/24/2020 11:05 AM**

Client ID: Run ID: **GC14_200224A** SeqNo: **6269699** Prep Date: **2/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	67								
Aroclor 1221	ND	67								
Aroclor 1232	ND	67								
Aroclor 1242	ND	67								
Aroclor 1248	ND	67								
Aroclor 1254	ND	67								
Aroclor 1260	ND	67								
Aroclor 1262	ND	67								
Aroclor 1268	ND	67								
Surr: Decachlorobiphenyl	*29.78*	0	*33.3*	0	*89.4*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*29.31*	0	*33.3*	0	*88*	*45-124*	0			

LCS Sample ID: **PLCSS1-152249-152249** Units: **µg/Kg** Analysis Date: **2/24/2020 11:30 AM**

Client ID: Run ID: **GC14_200224A** SeqNo: **6269700** Prep Date: **2/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	696.7	67	833	0	83.6	50-130	0			
Aroclor 1260	717.7	67	833	0	86.2	50-130	0			
Surr: Decachlorobiphenyl	*29.39*	0	*33.3*	0	*88.2*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*29.16*	0	*33.3*	0	*87.6*	*45-124*	0			

MS Sample ID: **20021144-31B MS** Units: **µg/Kg** Analysis Date: **2/24/2020 12:22 PM**

Client ID: **S-8R 4-5** Run ID: **GC14_200224A** SeqNo: **6269702** Prep Date: **2/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	664.5	65	816.3	0	81.4	40-140	0			
Aroclor 1260	679.5	65	816.3	0	83.2	40-140	0			
Surr: Decachlorobiphenyl	*26.83*	0	*32.63*	0	*82.2*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*25.72*	0	*32.63*	0	*78.8*	*45-124*	0			

MSD Sample ID: **20021144-31B MSD** Units: **µg/Kg** Analysis Date: **2/24/2020 12:38 PM**

Client ID: **S-8R 4-5** Run ID: **GC14_200224A** SeqNo: **6269703** Prep Date: **2/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	628.2	65	807.8	0	77.8	40-140	664.5	5.62	50	
Aroclor 1260	639.9	65	807.8	0	79.2	40-140	679.5	6.01	50	
Surr: Decachlorobiphenyl	*26.51*	0	*32.29*	0	*82.1*	*40-140*	26.83	*1.19*	*50*	
Surr: Tetrachloro-m-xylene	*25.33*	0	*32.29*	0	*78.5*	*45-124*	25.72	*1.52*	*50*	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152249** Instrument ID **GC14** Method: **SW8082**

The following samples were analyzed in this batch:

20021144-29B	20021144-30B	20021144-31B
20021144-32B	20021144-33B	20021144-34B
20021144-35B	20021144-36B	20021144-37B
20021144-38B	20021144-39B	20021144-40B
20021144-41B	20021144-42B	20021144-43B
20021144-44B	20021144-45B	20021144-46B
20021144-47B	20021144-48B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152297** Instrument ID **GC14** Method: **SW8082**

MBLK Sample ID: **PBLKW1-152297-152297** Units: **µg/L** Analysis Date: **2/24/2020 10:04 AM**

Client ID: Run ID: **GC14_200224A** SeqNo: **6269695** Prep Date: **2/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	0.20								
Aroclor 1221	ND	0.20								
Aroclor 1232	ND	0.20								
Aroclor 1242	ND	0.20								
Aroclor 1248	ND	0.20								
Aroclor 1254	ND	0.20								
Aroclor 1260	ND	0.20								
Aroclor 1262	ND	0.20								
Aroclor 1268	ND	0.20								
Surr: Decachlorobiphenyl	*0.1346*	0	*0.208*	0	*64.7*	*30-150*	0			
Surr: Tetrachloro-m-xylene	*0.166*	0	*0.208*	0	*79.8*	*50-150*	0			

LCS Sample ID: **PLCSW1-152297-152297** Units: **µg/L** Analysis Date: **2/24/2020 10:19 AM**

Client ID: Run ID: **GC14_200224A** SeqNo: **6269696** Prep Date: **2/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	3.771	0.20	4.17	0	90.4	50-150	0			
Aroclor 1260	4.188	0.20	4.17	0	100	50-150	0			
Surr: Decachlorobiphenyl	*0.202*	0	*0.208*	0	*97.1*	*30-150*	0			
Surr: Tetrachloro-m-xylene	*0.15*	0	*0.208*	0	*72.1*	*50-150*	0			

LCSD Sample ID: **PLCSDW1-152297-152297** Units: **µg/L** Analysis Date: **2/24/2020 10:34 AM**

Client ID: Run ID: **GC14_200224A** SeqNo: **6269697** Prep Date: **2/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	4.158	0.20	4.17	0	99.7	50-150	3.771	9.76	50	
Aroclor 1260	4.345	0.20	4.17	0	104	50-150	4.188	3.67	50	
Surr: Decachlorobiphenyl	*0.166*	0	*0.208*	0	*79.8*	*30-150*	0.202	*19.5*	*50*	
Surr: Tetrachloro-m-xylene	*0.1808*	0	*0.208*	0	*86.9*	*50-150*	0.15	*18.6*	*50*	

The following samples were analyzed in this batch: 20021144-25C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152341** Instrument ID **HG4** Method: **SW7471B**

MBLK Sample ID: **MBLK-152341-152341** Units: **mg/Kg** Analysis Date: **2/24/2020 03:32 PM**
Client ID: Run ID: **HG4_200224A** SeqNo: **6268405** Prep Date: **2/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00525	0.020								J

LCS Sample ID: **LCS-152341-152341** Units: **mg/Kg** Analysis Date: **2/24/2020 03:34 PM**
Client ID: Run ID: **HG4_200224A** SeqNo: **6268406** Prep Date: **2/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1575	0.020	0.1665	0	94.6	80-120		0		

MS Sample ID: **20021144-38BMS** Units: **mg/Kg** Analysis Date: **2/24/2020 04:07 PM**
Client ID: **S-10R 1-2** Run ID: **HG4_200224A** SeqNo: **6268422** Prep Date: **2/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1509	0.018	0.15	0.02729	82.4	75-125		0		

MSD Sample ID: **20021144-38BMSD** Units: **mg/Kg** Analysis Date: **2/24/2020 04:09 PM**
Client ID: **S-10R 1-2** Run ID: **HG4_200224A** SeqNo: **6268423** Prep Date: **2/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1587	0.018	0.1496	0.02729	87.9	75-125	0.1509	5.03	35	

The following samples were analyzed in this batch:

20021144-27B	20021144-28B	20021144-29B
20021144-30B	20021144-31B	20021144-32B
20021144-33B	20021144-34B	20021144-35B
20021144-36B	20021144-37B	20021144-38B
20021144-39B	20021144-40B	20021144-41B
20021144-42B	20021144-43B	20021144-44B
20021144-45B	20021144-46B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152380** Instrument ID **HG4** Method: **SW7471B**

MBLK Sample ID: **MBLK-152380-152380** Units: **mg/Kg** Analysis Date: **2/24/2020 02:29 PM**
Client ID: Run ID: **HG4_200224A** SeqNo: **6268375** Prep Date: **2/24/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.005417	0.020								J

LCS Sample ID: **LCS-152380-152380** Units: **mg/Kg** Analysis Date: **2/24/2020 02:31 PM**
Client ID: Run ID: **HG4_200224A** SeqNo: **6268376** Prep Date: **2/24/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1642	0.020	0.1665	0	98.6	80-120		0		

MS Sample ID: **20021181-01BMS** Units: **mg/Kg** Analysis Date: **2/24/2020 03:27 PM**
Client ID: Run ID: **HG4_200224A** SeqNo: **6268403** Prep Date: **2/24/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1613	0.018	0.1528	0.01275	97.3	75-125		0		

MSD Sample ID: **20021181-01BMSD** Units: **mg/Kg** Analysis Date: **2/24/2020 03:30 PM**
Client ID: Run ID: **HG4_200224A** SeqNo: **6268404** Prep Date: **2/24/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1511	0.018	0.1525	0.01275	90.7	75-125	0.1613	6.51	35	

The following samples were analyzed in this batch:

20021144-47B	20021144-48B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152508** Instrument ID **HG4** Method: **SW7470A**

MBLK Sample ID: **MBLK-152508-152508** Units: **mg/L** Analysis Date: **2/27/2020 01:43 PM**
Client ID: Run ID: **HG4_200227A** SeqNo: **6274751** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS Sample ID: **LCS-152508-152508** Units: **mg/L** Analysis Date: **2/27/2020 01:45 PM**
Client ID: Run ID: **HG4_200227A** SeqNo: **6274752** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00179	0.00020	0.002	0	89.5	80-120		0		

MS Sample ID: **20021006-32AMS** Units: **mg/L** Analysis Date: **2/27/2020 02:08 PM**
Client ID: Run ID: **HG4_200227A** SeqNo: **6274763** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0189	0.0020	0.02	0.00021	93.4	75-125		0		

MSD Sample ID: **20021006-32AMSD** Units: **mg/L** Analysis Date: **2/27/2020 02:10 PM**
Client ID: Run ID: **HG4_200227A** SeqNo: **6274764** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0188	0.0020	0.02	0.00021	93	75-125	0.0189	0.531	20	

The following samples were analyzed in this batch:

20021144-08A	20021144-11A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152199** Instrument ID **ICPMS3** Method: **SW6020B**

MBLK Sample ID: **MBLK-152199-152199** Units: **mg/Kg** Analysis Date: **2/19/2020 09:19 PM**
Client ID: Run ID: **ICPMS3_200219B** SeqNo: **6261264** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.10								
Chromium	ND	0.25								
Copper	ND	0.25								
Lead	ND	0.25								
Nickel	ND	0.25								
Silver	ND	0.25								
Thorium	ND	0.25								
Uranium	ND	0.25								
Zinc	ND	0.50								

MBLK Sample ID: **MBLK-152199-152199** Units: **mg/Kg** Analysis Date: **2/20/2020 06:38 PM**
Client ID: Run ID: **ICPMS3_200220B** SeqNo: **6263020** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	ND	0.25								

LCS Sample ID: **LCS-152199-152199** Units: **mg/Kg** Analysis Date: **2/19/2020 09:21 PM**
Client ID: Run ID: **ICPMS3_200219B** SeqNo: **6261265** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	5.722	0.25	5	0	114	80-120	0			
Barium	4.913	0.25	5	0	98.3	80-120	0			
Cadmium	4.723	0.10	5	0	94.5	80-120	0			
Chromium	5.846	0.25	5	0	117	80-120	0			
Copper	5.961	0.25	5	0	119	80-120	0			
Lead	4.958	0.25	5	0	99.2	80-120	0			
Nickel	5.734	0.25	5	0	115	80-120	0			
Selenium	4.822	0.25	5	0	96.4	80-120	0			
Silver	5.746	0.25	5	0	115	80-120	0			
Thorium	4.666	0.25	5	0	93.3	80-120	0			
Uranium	4.547	0.25	5	0	90.9	80-120	0			
Zinc	5.859	0.50	5	0	117	80-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152199** Instrument ID **ICPMS3** Method: **SW6020B**

MS Sample ID: **20021185-04AMS** Units: **mg/Kg** Analysis Date: **2/19/2020 10:15 PM**

Client ID: Run ID: **ICPMS3_200219B** SeqNo: **6261307** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.7	0.37	7.396	2.687	122	75-125	0			
Barium	98.96	0.37	7.396	99.27	-4.21	75-125	0			SO
Cadmium	6.207	0.15	7.396	-0.0885	85.1	75-125	0			
Chromium	22.34	0.37	7.396	17.49	65.5	75-125	0			S
Copper	18.58	0.37	7.396	11.48	96	75-125	0			
Lead	15.72	0.37	7.396	7.491	111	75-125	0			
Nickel	34.11	0.37	7.396	18.05	217	75-125	0			S
Selenium	6.631	0.37	7.396	0.04875	89	75-125	0			
Silver	6.315	0.37	7.396	0.02913	85	75-125	0			
Thorium	10.27	0.37	7.396	4.592	76.8	75-125	0			
Uranium	7.032	0.37	7.396	0.5976	87	75-125	0			
Zinc	33.46	0.74	7.396	32.62	11.4	75-125	0			SO

MSD Sample ID: **20021185-04AMSD** Units: **mg/Kg** Analysis Date: **2/19/2020 10:17 PM**

Client ID: Run ID: **ICPMS3_200219B** SeqNo: **6261308** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.84	0.37	7.429	2.687	110	75-125	11.7	7.69	20	
Barium	57.78	0.37	7.429	99.27	-558	75-125	98.96	52.5	20	SRO
Cadmium	6.445	0.15	7.429	-0.0885	87.9	75-125	6.207	3.76	20	
Chromium	17.9	0.37	7.429	17.49	5.43	75-125	22.34	22.1	20	SR
Copper	14.94	0.37	7.429	11.48	46.6	75-125	18.58	21.7	20	SR
Lead	14.06	0.37	7.429	7.491	88.4	75-125	15.72	11.2	20	
Nickel	19.05	0.37	7.429	18.05	13.5	75-125	34.11	56.7	20	SR
Selenium	6.728	0.37	7.429	0.04875	89.9	75-125	6.631	1.46	20	
Silver	6.411	0.37	7.429	0.02913	85.9	75-125	6.315	1.52	20	
Thorium	9.622	0.37	7.429	4.592	67.7	75-125	10.27	6.55	20	S
Uranium	7.185	0.37	7.429	0.5976	88.7	75-125	7.032	2.15	20	
Zinc	27.44	0.74	7.429	32.62	-69.6	75-125	33.46	19.8	20	SO

The following samples were analyzed in this batch:

20021144-27B	20021144-28B	20021144-29B
20021144-30B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152240** Instrument ID **ICPMS3** Method: **SW6020B**

MBLK Sample ID: **MBLK-152240-152240** Units: **mg/Kg** Analysis Date: **2/20/2020 07:59 PM**

Client ID: Run ID: **ICPMS3_200220B** SeqNo: **6263057** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.10								
Chromium	ND	0.25								
Copper	ND	0.25								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Thorium	ND	0.25								
Uranium	ND	0.25								
Zinc	ND	0.50								

LCS Sample ID: **LCS-152240-152240** Units: **mg/Kg** Analysis Date: **2/20/2020 08:01 PM**

Client ID: Run ID: **ICPMS3_200220B** SeqNo: **6263058** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.992	0.25	5	0	99.8	80-120	0			
Barium	5.189	0.25	5	0	104	80-120	0			
Cadmium	5.204	0.10	5	0	104	80-120	0			
Chromium	5.124	0.25	5	0	102	80-120	0			
Copper	5.264	0.25	5	0	105	80-120	0			
Lead	5.196	0.25	5	0	104	80-120	0			
Nickel	5.094	0.25	5	0	102	80-120	0			
Selenium	4.921	0.25	5	0	98.4	80-120	0			
Silver	5.308	0.25	5	0	106	80-120	0			
Thorium	4.85	0.25	5	0	97	80-120	0			
Uranium	4.802	0.25	5	0	96	80-120	0			
Zinc	5.139	0.50	5	0	103	80-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152240** Instrument ID **ICPMS3** Method: **SW6020B**

MS Sample ID: **20021144-48BMS** Units: **mg/Kg** Analysis Date: **2/20/2020 08:42 PM**
Client ID: **A-9** Run ID: **ICPMS3_200220B** SeqNo: **6263082** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	8.866	0.37	7.364	2.767	82.8	75-125	0			
Barium	102	0.37	7.364	86.78	207	75-125	0			SO
Cadmium	6.333	0.15	7.364	0.00265	86	75-125	0			
Chromium	25.5	0.37	7.364	14.47	150	75-125	0			S
Lead	15.7	0.37	7.364	8.895	92.4	75-125	0			
Selenium	6.273	0.37	7.364	0.1713	82.9	75-125	0			
Silver	6.511	0.37	7.364	0.02357	88.1	75-125	0			
Thorium	12.17	0.37	7.364	3.999	111	75-125	0			
Uranium	8.341	0.37	7.364	0.9782	100	75-125	0			
Zinc	42.6	0.74	7.364	50.45	-107	75-125	0			SO

MS Sample ID: **20021144-48BMS** Units: **mg/Kg** Analysis Date: **2/21/2020 05:48 PM**
Client ID: **A-9** Run ID: **ICPMS3_200221B** SeqNo: **6265839** Prep Date: **2/20/2020** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	24.33	3.7	7.364	18.35	81.2	75-125	0			
Nickel	29.99	3.7	7.364	22.61	100	75-125	0			

MSD Sample ID: **20021144-48BMSD** Units: **mg/Kg** Analysis Date: **2/20/2020 08:44 PM**
Client ID: **A-9** Run ID: **ICPMS3_200220B** SeqNo: **6263083** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	8.411	0.35	7.082	2.767	79.7	75-125	8.866	5.27	20	
Barium	107.2	0.35	7.082	86.78	289	75-125	102	4.99	20	SO
Cadmium	6.215	0.14	7.082	0.00265	87.7	75-125	6.333	1.88	20	
Chromium	24.73	0.35	7.082	14.47	145	75-125	25.5	3.04	20	S
Lead	15.34	0.35	7.082	8.895	91	75-125	15.7	2.3	20	
Selenium	6.019	0.35	7.082	0.1713	82.6	75-125	6.273	4.13	20	
Silver	6.269	0.35	7.082	0.02357	88.2	75-125	6.511	3.78	20	
Thorium	11.85	0.35	7.082	3.999	111	75-125	12.17	2.7	20	
Uranium	8.15	0.35	7.082	0.9782	101	75-125	8.341	2.31	20	
Zinc	40.44	0.71	7.082	50.45	-141	75-125	42.6	5.21	20	SO

MSD Sample ID: **20021144-48BMSD** Units: **mg/Kg** Analysis Date: **2/21/2020 05:50 PM**
Client ID: **A-9** Run ID: **ICPMS3_200221B** SeqNo: **6265840** Prep Date: **2/20/2020** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	22.29	3.5	7.082	18.35	55.7	75-125	24.33	8.74	20	S
Nickel	29.3	3.5	7.082	22.61	94.5	75-125	29.99	2.33	20	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152240** Instrument ID **ICPMS3** Method: **SW6020B**

The following samples were analyzed in this batch:

20021144-31B	20021144-32B	20021144-33B
20021144-34B	20021144-35B	20021144-36B
20021144-37B	20021144-38B	20021144-39B
20021144-40B	20021144-41B	20021144-42B
20021144-43B	20021144-44B	20021144-45B
20021144-46B	20021144-47B	20021144-48B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152584** Instrument ID **ICPMS3** Method: **SW6020B**

MBLK Sample ID: **MBLK-152584-152584** Units: **mg/L** Analysis Date: **2/27/2020 09:32 PM**
Client ID: Run ID: **ICPMS3_200227A** SeqNo: **6276681** Prep Date: **2/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.0050								
Lead	ND	0.0050								

LCS Sample ID: **LCS-152584-152584** Units: **mg/L** Analysis Date: **2/27/2020 09:34 PM**
Client ID: Run ID: **ICPMS3_200227A** SeqNo: **6276682** Prep Date: **2/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.09454	0.0050	0.1	0	94.5	80-120	0			
Lead	0.09916	0.0050	0.1	0	99.2	80-120	0			

MS Sample ID: **20021006-01AMS** Units: **mg/L** Analysis Date: **2/27/2020 09:40 PM**
Client ID: Run ID: **ICPMS3_200227A** SeqNo: **6276686** Prep Date: **2/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.96	0.050	1	0.005115	95.5	80-120	0			
Lead	1.258	0.050	1	0.2717	98.7	80-120	0			

MSD Sample ID: **20021006-01AMSD** Units: **mg/L** Analysis Date: **2/27/2020 09:42 PM**
Client ID: Run ID: **ICPMS3_200227A** SeqNo: **6276687** Prep Date: **2/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.9758	0.050	1	0.005115	97.1	80-120	0.96	1.63	20	
Lead	1.279	0.050	1	0.2717	101	80-120	1.258	1.63	20	

The following samples were analyzed in this batch:

20021144-08A	20021144-11A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152166** Instrument ID **SVMS6** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-152166-152166** Units: **µg/Kg** Analysis Date: **2/20/2020 11:27 AM**

Client ID: Run ID: **SVMS6_200220A** SeqNo: **6262306** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	4.2								
2-Chloronaphthalene	ND	4.2								
2-Methylnaphthalene	ND	4.2								
Acenaphthene	ND	4.2								
Acenaphthylene	ND	4.2								
Anthracene	ND	4.2								
Benzo(a)anthracene	ND	4.2								
Benzo(a)pyrene	ND	4.2								
Benzo(b)fluoranthene	ND	4.2								
Benzo(g,h,i)perylene	ND	4.2								
Benzo(k)fluoranthene	ND	4.2								
Chrysene	ND	4.2								
Dibenzo(a,h)anthracene	ND	4.2								
Fluoranthene	ND	4.2								
Fluorene	ND	4.2								
Indeno(1,2,3-cd)pyrene	ND	4.2								
Naphthalene	ND	4.2								
Phenanthrene	ND	4.2								
Pyrene	ND	4.2								
Surr: 2-Fluorobiphenyl	*3554*	0	*3333*	0	*107*	*20-140*	0			
Surr: 4-Terphenyl-d14	*3940*	0	*3333*	0	*118*	*22-172*	0			
Surr: Nitrobenzene-d5	*4024*	0	*3333*	0	*121*	*28-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152166** Instrument ID **SVMS6** Method: **SW846 8270D**

LCS Sample ID: **SLCSS1-152166-152166** Units: **µg/Kg** Analysis Date: **2/20/2020 12:44 PM**

Client ID: Run ID: **SVMS6_200220A** SeqNo: **6262311** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1388	4.2	1333	0	104	40-140	0			
2-Chloronaphthalene	1457	4.2	1333	0	109	40-140	0			
2-Methylnaphthalene	1516	4.2	1333	0	114	40-140	0			
Acenaphthene	1355	4.2	1333	0	102	40-140	0			
Acenaphthylene	1346	4.2	1333	0	101	40-140	0			
Anthracene	1514	4.2	1333	0	114	40-140	0			
Benzo(a)anthracene	1482	4.2	1333	0	111	40-140	0			
Benzo(a)pyrene	1356	4.2	1333	0	102	40-140	0			
Benzo(b)fluoranthene	1381	4.2	1333	0	104	40-140	0			
Benzo(g,h,i)perylene	1373	4.2	1333	0	103	40-140	0			
Benzo(k)fluoranthene	1423	4.2	1333	0	107	40-140	0			
Chrysene	1383	4.2	1333	0	104	40-140	0			
Dibenzo(a,h)anthracene	1328	4.2	1333	0	99.6	40-140	0			
Fluoranthene	1533	4.2	1333	0	115	40-140	0			
Fluorene	1480	4.2	1333	0	111	40-140	0			
Indeno(1,2,3-cd)pyrene	1475	4.2	1333	0	111	40-140	0			
Naphthalene	1503	4.2	1333	0	113	40-140	0			
Phenanthrene	1406	4.2	1333	0	105	40-140	0			
Pyrene	1486	4.2	1333	0	111	40-140	0			
Surr: 2-Fluorobiphenyl	*3514*	0	*3333*	0	*105*	*20-140*	0			
Surr: 4-Terphenyl-d14	*3802*	0	*3333*	0	*114*	*22-172*	0			
Surr: Nitrobenzene-d5	*3959*	0	*3333*	0	*119*	*28-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152166** Instrument ID **SVMS6** Method: **SW846 8270D**

MS Sample ID: **20021185-04A MS** Units: **µg/Kg** Analysis Date: **2/21/2020 12:10 PM**

Client ID: Run ID: **SVMS6_200220A** SeqNo: **6263917** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1322	4.1	1318	0	100	40-140	0			
2-Chloronaphthalene	1327	4.1	1318	0	101	40-140	0			
2-Methylnaphthalene	1443	4.1	1318	0	109	40-140	0			
Acenaphthene	1287	4.1	1318	0	97.6	40-140	0			
Acenaphthylene	1309	4.1	1318	0	99.3	40-140	0			
Anthracene	1337	4.1	1318	0	101	40-140	0			
Benzo(a)anthracene	1349	4.1	1318	0	102	40-140	0			
Benzo(a)pyrene	1256	4.1	1318	2.56	95.1	40-140	0			
Benzo(b)fluoranthene	1259	4.1	1318	3.254	95.3	40-140	0			
Benzo(g,h,i)perylene	1095	4.1	1318	0	83.1	40-140	0			
Benzo(k)fluoranthene	1311	4.1	1318	0	99.5	40-140	0			
Chrysene	1291	4.1	1318	0	98	40-140	0			
Dibenzo(a,h)anthracene	1080	4.1	1318	0	81.9	40-140	0			
Fluoranthene	1224	4.1	1318	2.924	92.7	40-140	0			
Fluorene	1317	4.1	1318	0	99.9	40-140	0			
Indeno(1,2,3-cd)pyrene	1211	4.1	1318	0	91.9	40-140	0			
Naphthalene	1449	4.1	1318	0	110	40-140	0			
Phenanthrene	1306	4.1	1318	0	99	40-140	0			
Pyrene	1133	4.1	1318	2.263	85.8	40-140	0			
Surr: 2-Fluorobiphenyl	*3203*	0	*3296*	0	*97.2*	*20-140*	0			
Surr: 4-Terphenyl-d14	*3000*	0	*3296*	0	*91*	*22-172*	0			
Surr: Nitrobenzene-d5	*3705*	0	*3296*	0	*112*	*28-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152166** Instrument ID **SVMS6** Method: **SW846 8270D**

MSD Sample ID: **20021185-04A MSD** Units: **µg/Kg** Analysis Date: **2/21/2020 12:25 PM**

Client ID: Run ID: **SVMS6_200220A** SeqNo: **6263918** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1350	4.1	1313	0	103	40-140	1322	2.09	30	
2-Chloronaphthalene	1356	4.1	1313	0	103	40-140	1327	2.19	30	
2-Methylnaphthalene	1462	4.1	1313	0	111	40-140	1443	1.35	30	
Acenaphthene	1313	4.1	1313	0	100	40-140	1287	1.98	30	
Acenaphthylene	1332	4.1	1313	0	101	40-140	1309	1.75	30	
Anthracene	1358	4.1	1313	0	103	40-140	1337	1.55	30	
Benzo(a)anthracene	1384	4.1	1313	0	105	40-140	1349	2.58	30	
Benzo(a)pyrene	1296	4.1	1313	2.56	98.5	40-140	1256	3.14	30	
Benzo(b)fluoranthene	1328	4.1	1313	3.254	101	40-140	1259	5.33	30	
Benzo(g,h,i)perylene	1133	4.1	1313	0	86.3	40-140	1095	3.44	30	
Benzo(k)fluoranthene	1340	4.1	1313	0	102	40-140	1311	2.17	30	
Chrysene	1322	4.1	1313	0	101	40-140	1291	2.32	30	
Dibenzo(a,h)anthracene	1115	4.1	1313	0	84.9	40-140	1080	3.23	30	
Fluoranthene	1189	4.1	1313	2.924	90.4	40-140	1224	2.9	30	
Fluorene	1336	4.1	1313	0	102	40-140	1317	1.4	30	
Indeno(1,2,3-cd)pyrene	1225	4.1	1313	0	93.3	40-140	1211	1.16	30	
Naphthalene	1476	4.1	1313	0	112	40-140	1449	1.84	30	
Phenanthrene	1341	4.1	1313	0	102	40-140	1306	2.69	30	
Pyrene	1121	4.1	1313	2.263	85.2	40-140	1133	1.13	30	
Surr: 2-Fluorobiphenyl	*3284*	0	*3282*	0	*100*	*20-140*	3203	*2.5*	*0*	
Surr: 4-Terphenyl-d14	*3120*	0	*3282*	0	*95*	*22-172*	3000	*3.93*	*0*	
Surr: Nitrobenzene-d5	*3810*	0	*3282*	0	*116*	*28-140*	3705	*2.79*	*0*	

The following samples were analyzed in this batch:

20021144-27B	20021144-28B	20021144-29B
20021144-30B	20021144-31B	20021144-32B
20021144-33B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152315** Instrument ID **SVMS6** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-152315-152315** Units: **µg/Kg** Analysis Date: **2/24/2020 12:03 PM**

Client ID: Run ID: **SVMS6_200224A** SeqNo: **6268975** Prep Date: **2/22/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	4.2								
2-Chloronaphthalene	ND	4.2								
2-Methylnaphthalene	ND	4.2								
Acenaphthene	ND	4.2								
Acenaphthylene	ND	4.2								
Anthracene	ND	4.2								
Benzo(a)anthracene	ND	4.2								
Benzo(a)pyrene	ND	4.2								
Benzo(b)fluoranthene	ND	4.2								
Benzo(g,h,i)perylene	ND	4.2								
Benzo(k)fluoranthene	ND	4.2								
Chrysene	ND	4.2								
Dibenzo(a,h)anthracene	ND	4.2								
Fluoranthene	ND	4.2								
Fluorene	ND	4.2								
Indeno(1,2,3-cd)pyrene	ND	4.2								
Naphthalene	ND	4.2								
Phenanthrene	ND	4.2								
Pyrene	ND	4.2								
Surr: 2-Fluorobiphenyl	*2856*	0	*3333*	0	*85.7*	*20-140*	0			
Surr: 4-Terphenyl-d14	*3174*	0	*3333*	0	*95.2*	*22-172*	0			
Surr: Nitrobenzene-d5	*3583*	0	*3333*	0	*108*	*28-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152315** Instrument ID **SVMS6** Method: **SW846 8270D**

LCS Sample ID: **SLCSS1-152315-152315** Units: **µg/Kg** Analysis Date: **2/24/2020 12:19 PM**

Client ID: Run ID: **SVMS6_200224A** SeqNo: **6268976** Prep Date: **2/22/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1041	4.2	1333	0	78.1	40-140	0			
2-Chloronaphthalene	1044	4.2	1333	0	78.3	40-140	0			
2-Methylnaphthalene	1116	4.2	1333	0	83.7	40-140	0			
Acenaphthene	1036	4.2	1333	0	77.7	40-140	0			
Acenaphthylene	1035	4.2	1333	0	77.6	40-140	0			
Anthracene	1069	4.2	1333	0	80.2	40-140	0			
Benzo(a)anthracene	1008	4.2	1333	0	75.6	40-140	0			
Benzo(a)pyrene	886	4.2	1333	0	66.5	40-140	0			
Benzo(b)fluoranthene	981.8	4.2	1333	0	73.7	40-140	0			
Benzo(g,h,i)perylene	814.3	4.2	1333	0	61.1	40-140	0			
Benzo(k)fluoranthene	1045	4.2	1333	0	78.4	40-140	0			
Chrysene	1005	4.2	1333	0	75.4	40-140	0			
Dibenzo(a,h)anthracene	767.8	4.2	1333	0	57.6	40-140	0			
Fluoranthene	987	4.2	1333	0	74	40-140	0			
Fluorene	1059	4.2	1333	0	79.5	40-140	0			
Indeno(1,2,3-cd)pyrene	818.4	4.2	1333	0	61.4	40-140	0			
Naphthalene	1169	4.2	1333	0	87.7	40-140	0			
Phenanthrene	1068	4.2	1333	0	80.1	40-140	0			
Pyrene	1007	4.2	1333	0	75.5	40-140	0			
Surr: 2-Fluorobiphenyl	*2750*	0	*3333*	0	*82.5*	*20-140*	0			
Surr: 4-Terphenyl-d14	*2659*	0	*3333*	0	*79.8*	*22-172*	0			
Surr: Nitrobenzene-d5	*3445*	0	*3333*	0	*103*	*28-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152315** Instrument ID **SVMS6** Method: **SW846 8270D**

MS Sample ID: **20021181-01B MS** Units: **µg/Kg** Analysis Date: **2/24/2020 12:36 PM**

Client ID: Run ID: **SVMS6_200224A** SeqNo: **6268977** Prep Date: **2/22/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1064	4.0	1267	0	84	40-140	0			
2-Chloronaphthalene	1030	4.0	1267	0	81.3	40-140	0			
2-Methylnaphthalene	1096	4.0	1267	0	86.5	40-140	0			
Acenaphthene	1030	4.0	1267	0	81.3	40-140	0			
Acenaphthylene	1016	4.0	1267	0	80.2	40-140	0			
Anthracene	1080	4.0	1267	0	85.3	40-140	0			
Benzo(a)anthracene	1081	4.0	1267	0	85.3	40-140	0			
Benzo(a)pyrene	995.9	4.0	1267	0	78.6	40-140	0			
Benzo(b)fluoranthene	1048	4.0	1267	0	82.7	40-140	0			
Benzo(g,h,i)perylene	852.9	4.0	1267	3.577	67	40-140	0			
Benzo(k)fluoranthene	1058	4.0	1267	0	83.5	40-140	0			
Chrysene	1032	4.0	1267	0	81.4	40-140	0			
Dibenzo(a,h)anthracene	809.5	4.0	1267	0	63.9	40-140	0			
Fluoranthene	1003	4.0	1267	2.368	79	40-140	0			
Fluorene	1049	4.0	1267	0	82.8	40-140	0			
Indeno(1,2,3-cd)pyrene	883.5	4.0	1267	0	69.7	40-140	0			
Naphthalene	1145	4.0	1267	0	90.4	40-140	0			
Phenanthrene	1064	4.0	1267	0	84	40-140	0			
Pyrene	1003	4.0	1267	2.875	78.9	40-140	0			
Surr: 2-Fluorobiphenyl	*2728*	0	*3168*	0	*86.1*	*20-140*	0			
Surr: 4-Terphenyl-d14	*2845*	0	*3168*	0	*89.8*	*22-172*	0			
Surr: Nitrobenzene-d5	*3229*	0	*3168*	0	*102*	*28-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152315** Instrument ID **SVMS6** Method: **SW846 8270D**

MSD Sample ID: **20021181-01B MSD** Units: **µg/Kg** Analysis Date: **2/24/2020 12:51 PM**

Client ID: Run ID: **SVMS6_200224A** SeqNo: **6268978** Prep Date: **2/22/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1047	3.9	1257	0	83.3	40-140	1064	1.61	30	
2-Chloronaphthalene	1052	3.9	1257	0	83.7	40-140	1030	2.14	30	
2-Methylnaphthalene	1112	3.9	1257	0	88.5	40-140	1096	1.45	30	
Acenaphthene	1044	3.9	1257	0	83.1	40-140	1030	1.32	30	
Acenaphthylene	1037	3.9	1257	0	82.5	40-140	1016	2.03	30	
Anthracene	1098	3.9	1257	0	87.4	40-140	1080	1.65	30	
Benzo(a)anthracene	1099	3.9	1257	0	87.4	40-140	1081	1.67	30	
Benzo(a)pyrene	1035	3.9	1257	0	82.3	40-140	995.9	3.82	30	
Benzo(b)fluoranthene	1058	3.9	1257	0	84.2	40-140	1048	0.988	30	
Benzo(g,h,i)perylene	902.1	3.9	1257	3.577	71.5	40-140	852.9	5.6	30	
Benzo(k)fluoranthene	1085	3.9	1257	0	86.3	40-140	1058	2.54	30	
Chrysene	1047	3.9	1257	0	83.3	40-140	1032	1.41	30	
Dibenzo(a,h)anthracene	858.2	3.9	1257	0	68.3	40-140	809.5	5.84	30	
Fluoranthene	1008	3.9	1257	2.368	80	40-140	1003	0.542	30	
Fluorene	1068	3.9	1257	0	84.9	40-140	1049	1.8	30	
Indeno(1,2,3-cd)pyrene	902.2	3.9	1257	0	71.8	40-140	883.5	2.09	30	
Naphthalene	1160	3.9	1257	0	92.3	40-140	1145	1.29	30	
Phenanthrene	1082	3.9	1257	0	86.1	40-140	1064	1.65	30	
Pyrene	1033	3.9	1257	2.875	81.9	40-140	1003	2.95	30	
Surr: 2-Fluorobiphenyl	*2772*	0	*3143*	0	*88.2*	*20-140*	*2728*	*1.59*	*0*	
Surr: 4-Terphenyl-d14	*2883*	0	*3143*	0	*91.7*	*22-172*	2845	*1.34*	*0*	
Surr: Nitrobenzene-d5	*3310*	0	*3143*	0	*105*	*28-140*	3229	*2.5*	*0*	

The following samples were analyzed in this batch:

20021144-34B	20021144-35B	20021144-36B
20021144-37B	20021144-38B	20021144-39B
20021144-40B	20021144-41B	20021144-42B
20021144-43B	20021144-44B	20021144-45B
20021144-46B	20021144-47B	20021144-48B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152551** Instrument ID **SVMS8** Method: **SW8270D**

MBLK Sample ID: **SBLKW1-152551-152551** Units: **µg/L** Analysis Date: **2/28/2020 01:11 PM**

Client ID: Run ID: **SVMS8_200228A** SeqNo: **6278095** Prep Date: **2/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	ND	5.0								
2,4,5-Trichlorophenol	ND	5.0								
2,4,6-Trichlorophenol	ND	5.0								
2,4-Dinitrotoluene	ND	5.0								
Hexachloro-1,3-butadiene	ND	5.0								
Hexachlorobenzene	ND	5.0								
Hexachloroethane	ND	5.0								
m-Cresol	ND	5.0								
Nitrobenzene	ND	5.0								
o-Cresol	ND	5.0								
p-Cresol	ND	5.0								
Pentachlorophenol	ND	5.0								
Pyridine	ND	10								
Surr: 2,4,6-Tribromophenol	*27.27*	0	*50*	0	*54.5*	*27-83*		0		
Surr: 2-Fluorobiphenyl	*29.06*	0	*50*	0	*58.1*	*26-79*		0		
Surr: 2-Fluorophenol	*21.65*	0	*50*	0	*43.3*	*13-56*		0		
Surr: 4-Terphenyl-d14	*46.41*	0	*50*	0	*92.8*	*43-106*		0		
Surr: Nitrobenzene-d5	*32.65*	0	*50*	0	*65.3*	*29-80*		0		
Surr: Phenol-d6	*14.8*	0	*50*	0	*29.6*	*10-35*		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152551** Instrument ID **SVMS8** Method: **SW8270D**

LCS Sample ID: **SLCSW1-152551-152551** Units: **µg/L** Analysis Date: **2/28/2020 01:32 PM**

Client ID: Run ID: **SVMS8_200228A** SeqNo: **6278096** Prep Date: **2/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	12.04	5.0	20	0	60.2	12-85	0			
2,4,5-Trichlorophenol	13.3	5.0	20	0	66.5	47-84	0			
2,4,6-Trichlorophenol	13.02	5.0	20	0	65.1	45-83	0			
2,4-Dinitrotoluene	14.89	5.0	20	0	74.4	54-93	0			
Hexachloro-1,3-butadiene	11.83	5.0	20	0	59.2	11-83	0			
Hexachlorobenzene	14.85	5.0	20	0	74.2	53-89	0			
Hexachloroethane	11.59	5.0	20	0	58	10-85	0			
m-Cresol	11.5	5.0	20	0	57.5	24-70	0			
Nitrobenzene	13.67	5.0	20	0	68.4	38-86	0			
o-Cresol	12.73	5.0	20	0	63.6	29-76	0			
p-Cresol	11.5	5.0	20	0	57.5	24-70	0			
Pentachlorophenol	8.82	5.0	20	0	44.1	37-94	0			
Pyridine	7.32	10	20	0	36.6	10-50	0			J
Surr: 2,4,6-Tribromophenol	*31.72*	0	*50*	0	*63.4*	*27-83*	0			
Surr: 2-Fluorobiphenyl	*30.12*	0	*50*	0	*60.2*	*26-79*	0			
Surr: 2-Fluorophenol	*21.49*	0	*50*	0	*43*	*13-56*	0			
Surr: 4-Terphenyl-d14	*41.72*	0	*50*	0	*83.4*	*43-106*	0			
Surr: Nitrobenzene-d5	*32.37*	0	*50*	0	*64.7*	*29-80*	0			
Surr: Phenol-d6	*14.82*	0	*50*	0	*29.6*	*10-35*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152551** Instrument ID **SVMS8** Method: **SW8270D**

MS Sample ID: **20021144-08A MS** Units: **µg/L** Analysis Date: **2/28/2020 01:53 PM**

Client ID: **S-9R 0-1 TCLP** Run ID: **SVMS8_200228A** SeqNo: **6278097** Prep Date: **2/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	223.6	100	400	0	55.9	12-85	0			
2,4,5-Trichlorophenol	274.6	100	400	0	68.6	47-84	0			
2,4,6-Trichlorophenol	269.6	100	400	0	67.4	45-83	0			
2,4-Dinitrotoluene	294.8	100	400	0	73.7	54-93	0			
Hexachloro-1,3-butadiene	226.2	100	400	0	56.6	11-83	0			
Hexachlorobenzene	296	100	400	0	74	53-89	0			
Hexachloroethane	221	100	400	0	55.2	10-85	0			
m-Cresol	226	100	400	0	56.5	24-70	0			
Nitrobenzene	263.8	100	400	0	66	38-86	0			
o-Cresol	258.4	100	400	0	64.6	29-76	0			
p-Cresol	226	100	400	0	56.5	24-70	0			
Pentachlorophenol	224.2	100	400	0	56	37-94	0			
Pyridine	148.2	200	400	0	37	10-50	0			J
Surr: 2,4,6-Tribromophenol	*655.6*	0	*1000*	0	*65.6*	*27-83*	0			
Surr: 2-Fluorobiphenyl	*587.4*	0	*1000*	0	*58.7*	*26-79*	0			
Surr: 2-Fluorophenol	*411.2*	0	*1000*	0	*41.1*	*13-56*	0			
Surr: 4-Terphenyl-d14	*821.8*	0	*1000*	0	*82.2*	*43-106*	0			
Surr: Nitrobenzene-d5	*639.6*	0	*1000*	0	*64*	*29-80*	0			
Surr: Phenol-d6	*269*	0	*1000*	0	*26.9*	*10-35*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152551** Instrument ID **SVMS8** Method: **SW8270D**

MSD Sample ID: **20021144-08A MSD** Units: **µg/L** Analysis Date: **2/28/2020 02:14 PM**

Client ID: **S-9R 0-1 TCLP** Run ID: **SVMS8_200228A** SeqNo: **6278098** Prep Date: **2/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	224	100	400	0	56	12-85	223.6	0.179	30	
2,4,5-Trichlorophenol	267	100	400	0	66.8	47-84	274.6	2.81	30	
2,4,6-Trichlorophenol	262.6	100	400	0	65.6	45-83	269.6	2.63	30	
2,4-Dinitrotoluene	299.8	100	400	0	75	54-93	294.8	1.68	30	
Hexachloro-1,3-butadiene	221.2	100	400	0	55.3	11-83	226.2	2.24	30	
Hexachlorobenzene	287.8	100	400	0	72	53-89	296	2.81	30	
Hexachloroethane	218	100	400	0	54.5	10-85	221	1.37	30	
m-Cresol	216.4	100	400	0	54.1	24-70	226	4.34	30	
Nitrobenzene	250	100	400	0	62.5	38-86	263.8	5.37	30	
o-Cresol	241	100	400	0	60.2	29-76	258.4	6.97	30	
p-Cresol	216.4	100	400	0	54.1	24-70	226	4.34	30	
Pentachlorophenol	247	100	400	0	61.8	37-94	224.2	9.68	30	
Pyridine	106	200	400	0	26.5	10-50	148.2	0	30	J
Surr: 2,4,6-Tribromophenol	*667.4*	0	*1000*	0	*66.7*	*27-83*	655.6	*1.78*	*40*	
Surr: 2-Fluorobiphenyl	*568.4*	0	*1000*	0	*56.8*	*26-79*	587.4	*3.29*	*40*	
Surr: 2-Fluorophenol	*397.8*	0	*1000*	0	*39.8*	*13-56*	411.2	*3.31*	*40*	
Surr: 4-Terphenyl-d14	*838.4*	0	*1000*	0	*83.8*	*43-106*	821.8	*2*	*40*	
Surr: Nitrobenzene-d5	*597.6*	0	*1000*	0	*59.8*	*29-80*	639.6	*6.79*	*40*	
Surr: Phenol-d6	*264.6*	0	*1000*	0	*26.5*	*10-35*	269	*1.65*	*40*	

The following samples were analyzed in this batch:

20021144-08A	20021144-11A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152112** Instrument ID **VMS11** Method: **SW8260C**

LCS Sample ID: **LCS-152112-152112** Units: **µg/Kg-dry** Analysis Date: **2/21/2020 10:45 PM**

Client ID: Run ID: **VMS11_200221A** SeqNo: **6266690** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1110	30	1000	0	111	75-125	0			
1,1,1-Trichloroethane	1138	30	1000	0	114	70-135	0			
1,1,2,2-Tetrachloroethane	1098	30	1000	0	110	55-130	0			
1,1,2-Trichloroethane	1122	30	1000	0	112	60-125	0			
1,1-Dichloroethane	1082	30	1000	0	108	75-125	0			
1,1-Dichloroethene	1164	30	1000	0	116	76-148	0			
1,2,3-Trichloropropane	1039	30	1000	0	104	65-130	0			
1,2,4-Trichlorobenzene	1137	100	1000	0	114	65-130	0			
1,2,4-Trimethylbenzene	999	30	1000	0	99.9	65-135	0			
1,2-Dibromo-3-chloropropane	888	100	1000	0	88.8	40-135	0			
1,2-Dibromoethane	1174	30	1000	0	117	80-195	0			
1,2-Dichlorobenzene	1131	30	1000	0	113	75-120	0			
1,2-Dichloroethane	1012	100	1000	0	101	70-135	0			
1,2-Dichloropropane	982	30	1000	0	98.2	70-120	0			
1,3,5-Trimethylbenzene	1136	100	1000	0	114	65-135	0			
1,3-Dichlorobenzene	1186	30	1000	0	119	70-125	0			
1,4-Dichlorobenzene	1086	30	1000	0	109	70-125	0			
2-Butanone	1055	200	1000	0	106	30-160	0			
2-Hexanone	1202	30	1000	0	120	45-145	0			
4-Methyl-2-pentanone	1562	30	1000	0	156	74-176	0			
Acetone	1140	100	1000	0	114	20-160	0			
Acrylonitrile	966	100	1000	0	96.6	70-135	0			
Benzene	1064	30	1000	0	106	75-125	0			
Bromochloromethane	990.5	30	1000	0	99	74-134	0			
Bromodichloromethane	1012	30	1000	0	101	70-130	0			
Bromoform	973.5	30	1000	0	97.4	55-135	0			
Bromomethane	980.5	100	1000	0	98	50-170	0			
Carbon disulfide	1248	30	1000	0	125	45-160	0			
Carbon tetrachloride	1122	30	1000	0	112	65-135	0			
Chlorobenzene	1096	30	1000	0	110	75-125	0			
Chloroethane	927.5	100	1000	0	92.8	40-155	0			
Chloroform	1074	30	1000	0	107	66-140	0			
Chloromethane	1084	100	1000	0	108	50-144	0			
cis-1,2-Dichloroethene	1062	30	1000	0	106	65-125	0			
cis-1,3-Dichloropropene	989.5	30	1000	0	99	70-125	0			
Dibromochloromethane	925	30	1000	0	92.5	65-135	0			
Dibromomethane	999	30	1000	0	99.9	75-130	0			
Dichlorodifluoromethane	1358	100	1000	0	136	35-135	0			S
Diethyl ether	1101	30	1000	0	110	67-150	0			
Ethylbenzene	1118	30	1000	0	112	75-125	0			
Hexachloroethane	1164	100	1000	0	116	51-122	0			
Isopropylbenzene	1118	30	1000	0	112	75-130	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **152112** Instrument ID **VMS11** Method: **SW8260C**

m,p-Xylene	2228	60	2000	0	111	80-125	0	
Methyl iodide	1174	500	1000	0	117	64-180	0	
Methyl tert-butyl ether	1334	30	1000	0	133	75-125	0	S
Methylene chloride	970.5	250	1000	0	97	55-145	0	
Naphthalene	1148	100	1000	0	115	40-140	0	
n-Propylbenzene	1044	30	1000	0	104	65-135	0	
o-Xylene	1121	30	1000	0	112	75-125	0	
Styrene	1033	30	1000	0	103	80-138	0	
Tetrachloroethene	1210	30	1000	0	121	67-167	0	
Toluene	1081	30	1000	0	108	70-125	0	
trans-1,2-Dichloroethene	1130	30	1000	0	113	65-135	0	
trans-1,3-Dichloropropene	1083	30	1000	0	108	59-129	0	
trans-1,4-Dichloro-2-butene	810.5	30	1000	0	81	62-112	0	
Trichloroethene	1096	30	1000	0	110	75-125	0	
Trichlorofluoromethane	980.5	30	1000	0	98	25-185	0	
Vinyl chloride	1035	30	1000	0	104	60-125	0	
Xylenes, Total	3350	90	3000	0	112	75-125	0	
Surr: 1,2-Dichloroethane-d4	*993*	0	*1000*	0	*99.3*	*70-130*	0	
Surr: 4-Bromofluorobenzene	*981.5*	0	*1000*	0	*98.2*	*70-130*	0	
Surr: Dibromofluoromethane	*1019*	0	*1000*	0	*102*	*70-130*	0	
Surr: Toluene-d8	*1041*	0	*1000*	0	*104*	*70-130*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152112** Instrument ID **VMS11** Method: **SW8260C**

MS Sample ID: **20021144-30A MS** Units: **µg/Kg-dry** Analysis Date: **2/22/2020 08:15 AM**

Client ID: **S-8R 3-4** Run ID: **VMS11_200221A** SeqNo: **6266711** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1693	50	1676	0	101	75-125	0			
1,1,1-Trichloroethane	1787	50	1676	0	107	70-135	0			
1,1,2,2-Tetrachloroethane	1333	50	1676	0	79.6	55-130	0			
1,1,2-Trichloroethane	1829	50	1676	0	109	60-125	0			
1,1-Dichloroethane	1672	50	1676	0	99.8	75-125	0			
1,1-Dichloroethene	1978	50	1676	0	118	76-148	0			
1,2,3-Trichloropropane	1674	50	1676	0	99.8	65-130	0			
1,2,4-Trichlorobenzene	1798	170	1676	0	107	65-130	0			
1,2,4-Trimethylbenzene	1632	50	1676	0	97.4	65-135	0			
1,2-Dibromo-3-chloropropane	1281	170	1676	0	76.4	40-135	0			
1,2-Dibromoethane	1831	50	1676	0	109	80-195	0			
1,2-Dichlorobenzene	1867	50	1676	0	111	75-120	0			
1,2-Dichloroethane	1589	170	1676	0	94.8	70-135	0			
1,2-Dichloropropane	1567	50	1676	0	93.5	70-120	0			
1,3,5-Trimethylbenzene	1830	170	1676	0	109	65-135	0			
1,3-Dichlorobenzene	1974	50	1676	0	118	70-125	0			
1,4-Dichlorobenzene	1834	50	1676	0	109	70-125	0			
2-Butanone	2351	340	1676	0	140	30-160	0			
2-Hexanone	2755	50	1676	0	164	45-145	0			S
4-Methyl-2-pentanone	1939	50	1676	0	116	74-176	0			
Acetone	3386	170	1676	0	202	20-160	0			S
Acrylonitrile	1351	170	1676	0	80.6	70-135	0			
Benzene	1648	50	1676	0	98.3	75-125	0			
Bromochloromethane	1533	50	1676	0	91.4	74-134	0			
Bromodichloromethane	1469	50	1676	0	87.6	70-130	0			
Bromoform	1403	50	1676	0	83.7	55-135	0			
Bromomethane	528.8	170	1676	0	31.6	50-170	0			S
Carbon disulfide	1872	50	1676	0	112	45-160	0			
Carbon tetrachloride	1721	50	1676	0	103	65-135	0			
Chlorobenzene	1796	50	1676	0	107	75-125	0			
Chloroethane	1197	170	1676	0	71.4	40-155	0			
Chloroform	1604	50	1676	0	95.7	66-140	0			
Chloromethane	1736	170	1676	0	104	50-144	0			
cis-1,2-Dichloroethene	1597	50	1676	0	95.3	65-125	0			
cis-1,3-Dichloropropene	1430	50	1676	0	85.3	70-125	0			
Dibromochloromethane	1365	50	1676	0	81.4	65-135	0			
Dibromomethane	1575	50	1676	0	94	75-130	0			
Dichlorodifluoromethane	2422	170	1676	0	144	35-135	0			S
Diethyl ether	1532	50	1676	0	91.4	67-150	0			
Ethylbenzene	1844	50	1676	0	110	75-125	0			
Hexachloroethane	1607	170	1676	0	95.9	51-122	0			
Isopropylbenzene	1851	50	1676	0	110	75-130	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **152112** Instrument ID **VMS11** Method: **SW8260C**

m,p-Xylene	3683	100	3352	0	110	80-125	0	
Methyl iodide	1747	840	1676	39	102	64-180	0	
Methyl tert-butyl ether	1748	50	1676	0	104	75-125	0	
Methylene chloride	1604	420	1676	14.51	94.8	55-145	0	
Naphthalene	1794	170	1676	0	107	40-140	0	
n-Propylbenzene	1696	50	1676	0	101	65-135	0	
o-Xylene	1820	50	1676	0	109	75-125	0	
Styrene	1663	50	1676	0	99.2	80-138	0	
Tetrachloroethene	3528	50	1676	0	210	67-167	0	S
Toluene	1762	50	1676	0	105	70-125	0	
trans-1,2-Dichloroethene	1771	50	1676	0	106	65-135	0	
trans-1,3-Dichloropropene	1595	50	1676	0	95.2	59-129	0	
trans-1,4-Dichloro-2-butene	1017	50	1676	0	60.6	62-112	0	S
Trichloroethene	2014	50	1676	0	120	75-125	0	
Trichlorofluoromethane	2029	50	1676	0	121	25-185	0	
Vinyl chloride	1583	50	1676	0	94.4	60-125	0	
Xylenes, Total	5503	150	5029	0	109	75-125	0	
Surr: 1,2-Dichloroethane-d4	*1789*	0	*1676*	0	*107*	*70-130*	0	
Surr: 4-Bromofluorobenzene	*1598*	0	*1676*	0	*95.4*	*70-130*	0	
Surr: Dibromofluoromethane	*1670*	0	*1676*	0	*99.6*	*70-130*	0	
Surr: Toluene-d8	*1830*	0	*1676*	0	*109*	*70-130*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152112** Instrument ID **VMS11** Method: **SW8260C**

MSD Sample ID: **20021144-30A MSD** Units: **µg/Kg-dry** Analysis Date: **2/22/2020 08:37 AM**

Client ID: **S-8R 3-4** Run ID: **VMS11_200221A** SeqNo: **6266712** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1656	51	1700	0	97.4	75-125	1693	2.22	30	
1,1,1-Trichloroethane	1714	51	1700	0	101	70-135	1787	4.13	30	
1,1,2,2-Tetrachloroethane	995.4	51	1700	0	58.6	55-130	1333	29	30	
1,1,2-Trichloroethane	1919	51	1700	0	113	60-125	1829	4.83	30	
1,1-Dichloroethane	1640	51	1700	0	96.4	75-125	1672	1.95	30	
1,1-Dichloroethene	1873	51	1700	0	110	76-148	1978	5.43	30	
1,2,3-Trichloropropane	1725	51	1700	0	101	65-130	1674	3	30	
1,2,4-Trichlorobenzene	1856	170	1700	0	109	65-130	1798	3.21	30	
1,2,4-Trimethylbenzene	1554	51	1700	0	91.4	65-135	1632	4.9	30	
1,2-Dibromo-3-chloropropane	1357	170	1700	0	79.8	40-135	1281	5.7	30	
1,2-Dibromoethane	1918	51	1700	0	113	80-195	1831	4.65	30	
1,2-Dichlorobenzene	1901	51	1700	0	112	75-120	1867	1.77	30	
1,2-Dichloroethane	1618	170	1700	0	95.2	70-135	1589	1.83	30	
1,2-Dichloropropane	1510	51	1700	0	88.8	70-120	1567	3.69	30	
1,3,5-Trimethylbenzene	1790	170	1700	0	105	65-135	1830	2.18	30	
1,3-Dichlorobenzene	1920	51	1700	0	113	70-125	1974	2.75	30	
1,4-Dichlorobenzene	1850	51	1700	0	109	70-125	1834	0.86	30	
2-Butanone	2427	340	1700	0	143	30-160	2351	3.18	30	
2-Hexanone	2980	51	1700	0	175	45-145	2755	7.86	30	S
4-Methyl-2-pentanone	1925	51	1700	0	113	74-176	1939	0.73	30	
Acetone	3718	170	1700	0	219	20-160	3386	9.35	30	S
Acrylonitrile	1436	170	1700	0	84.4	70-135	1351	6.07	30	
Benzene	1596	51	1700	0	93.9	75-125	1648	3.17	30	
Bromochloromethane	1524	51	1700	0	89.6	74-134	1533	0.578	30	
Bromodichloromethane	1460	51	1700	0	85.9	70-130	1469	0.607	30	
Bromoform	1442	51	1700	0	84.8	55-135	1403	2.77	30	
Bromomethane	490.5	170	1700	0	28.8	50-170	528.8	7.53	30	S
Carbon disulfide	1773	51	1700	0	104	45-160	1872	5.44	30	
Carbon tetrachloride	1611	51	1700	0	94.8	65-135	1721	6.6	30	
Chlorobenzene	1763	51	1700	0	104	75-125	1796	1.86	30	
Chloroethane	1051	170	1700	0	61.8	40-155	1197	13	30	
Chloroform	1560	51	1700	0	91.8	66-140	1604	2.81	30	
Chloromethane	1646	170	1700	0	96.8	50-144	1736	5.28	30	
cis-1,2-Dichloroethene	1567	51	1700	0	92.2	65-125	1597	1.95	30	
cis-1,3-Dichloropropene	1415	51	1700	0	83.2	70-125	1430	1.02	30	
Dibromochloromethane	1389	51	1700	0	81.7	65-135	1365	1.72	30	
Dibromomethane	1573	51	1700	0	92.5	75-130	1575	0.146	30	
Dichlorodifluoromethane	2168	170	1700	0	128	35-135	2422	11.1	30	
Diethyl ether	1548	51	1700	0	91	67-150	1532	1.03	30	
Ethylbenzene	1774	51	1700	0	104	75-125	1844	3.86	30	
Hexachloroethane	1521	170	1700	0	89.4	51-122	1607	5.55	30	
Isopropylbenzene	1741	51	1700	0	102	75-130	1851	6.11	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **152112** Instrument ID **VMS11** Method: **SW8260C**

m,p-Xylene	3550	100	3400	0	104	80-125	3683	3.68	30	
Methyl iodide	1653	850	1700	39	95	64-180	1747	5.54	30	
Methyl tert-butyl ether	1799	51	1700	0	106	75-125	1748	2.88	30	
Methylene chloride	1608	430	1700	14.51	93.7	55-145	1604	0.254	30	
Naphthalene	1871	170	1700	0	110	40-140	1794	4.17	30	
n-Propylbenzene	1627	51	1700	0	95.7	65-135	1696	4.18	30	
o-Xylene	1784	51	1700	0	105	75-125	1820	1.96	30	
Styrene	1634	51	1700	0	96.1	80-138	1663	1.76	30	
Tetrachloroethene	3441	51	1700	0	202	67-167	3528	2.51	30	S
Toluene	1712	51	1700	0	101	70-125	1762	2.87	30	
trans-1,2-Dichloroethene	1713	51	1700	0	101	65-135	1771	3.34	30	
trans-1,3-Dichloropropene	1648	51	1700	0	97	59-129	1595	3.28	30	
trans-1,4-Dichloro-2-butene	1075	51	1700	0	63.2	62-112	1017	5.61	30	
Trichloroethene	2281	51	1700	0	134	75-125	2014	12.5	30	S
Trichlorofluoromethane	1966	51	1700	0	116	25-185	2029	3.15	30	
Vinyl chloride	1489	51	1700	0	87.6	60-125	1583	6.12	30	
Xylenes, Total	5335	150	5100	0	105	75-125	5503	3.11	30	
Surr: 1,2-Dichloroethane-d4	*1804*	0	*1700*	0	*106*	*70-130*	1789	*0.799*	*30*	
Surr: 4-Bromofluorobenzene	*1657*	0	*1700*	0	*97.4*	*70-130*	1598	*3.59*	*30*	
Surr: Dibromofluoromethane	*1697*	0	*1700*	0	*99.8*	*70-130*	1670	*1.61*	*30*	
Surr: Toluene-d8	*1839*	0	*1700*	0	*108*	*70-130*	1830	*0.489*	*30*	

The following samples were analyzed in this batch:

20021144-27A	20021144-28A	20021144-29A
20021144-30A	20021144-31A	20021144-32A
20021144-33A	20021144-34A	20021144-35A
20021144-36A	20021144-37A	20021144-38A
20021144-39A	20021144-40A	20021144-41A
20021144-42A	20021144-43A	20021144-44A
20021144-45A	20021144-46A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152184** Instrument ID **VMS11** Method: **SW8260C**

LCS Sample ID: **LCS-152184-152184** Units: **µg/Kg-dry** Analysis Date: **2/21/2020 11:06 PM**

Client ID: Run ID: **VMS11_200221A** SeqNo: **6266691** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1030	30	1000	0	103	75-125	0			
1,1,1-Trichloroethane	1096	30	1000	0	110	70-135	0			
1,1,2,2-Tetrachloroethane	1102	30	1000	0	110	55-130	0			
1,1,2-Trichloroethane	1112	30	1000	0	111	60-125	0			
1,1-Dichloroethane	1020	30	1000	0	102	75-125	0			
1,1-Dichloroethene	1115	30	1000	0	112	76-148	0			
1,2,3-Trichloropropane	1028	30	1000	0	103	65-130	0			
1,2,4-Trichlorobenzene	1075	100	1000	0	108	65-130	0			
1,2,4-Trimethylbenzene	965.5	30	1000	0	96.6	65-135	0			
1,2-Dibromo-3-chloropropane	897.5	100	1000	0	89.8	40-135	0			
1,2-Dibromoethane	1122	30	1000	0	112	80-195	0			
1,2-Dichlorobenzene	1108	30	1000	0	111	75-120	0			
1,2-Dichloroethane	1008	100	1000	0	101	70-135	0			
1,2-Dichloropropane	965.5	30	1000	0	96.6	70-120	0			
1,3,5-Trimethylbenzene	1080	100	1000	0	108	65-135	0			
1,3-Dichlorobenzene	1142	30	1000	0	114	70-125	0			
1,4-Dichlorobenzene	1088	30	1000	0	109	70-125	0			
2-Butanone	1062	200	1000	0	106	30-160	0			
2-Hexanone	1200	30	1000	0	120	45-145	0			
4-Methyl-2-pentanone	1474	30	1000	0	147	74-176	0			
Acetone	1034	100	1000	0	103	20-160	0			
Acrylonitrile	947.5	100	1000	0	94.8	70-135	0			
Benzene	1027	30	1000	0	103	75-125	0			
Bromochloromethane	947	30	1000	0	94.7	74-134	0			
Bromodichloromethane	952.5	30	1000	0	95.2	70-130	0			
Bromoform	933	30	1000	0	93.3	55-135	0			
Bromomethane	905	100	1000	0	90.5	50-170	0			
Carbon disulfide	1192	30	1000	0	119	45-160	0			
Carbon tetrachloride	1064	30	1000	0	106	65-135	0			
Chlorobenzene	1068	30	1000	0	107	75-125	0			
Chloroethane	903	100	1000	0	90.3	40-155	0			
Chloroform	1006	30	1000	0	101	66-140	0			
Chloromethane	1076	100	1000	0	108	50-144	0			
cis-1,2-Dichloroethene	989	30	1000	0	98.9	65-125	0			
cis-1,3-Dichloropropene	948	30	1000	0	94.8	70-125	0			
Dibromochloromethane	855	30	1000	0	85.5	65-135	0			
Dibromomethane	1018	30	1000	0	102	75-130	0			
Dichlorodifluoromethane	1296	100	1000	0	130	35-135	0			
Diethyl ether	1067	30	1000	0	107	67-150	0			
Ethylbenzene	1078	30	1000	0	108	75-125	0			
Hexachloroethane	1091	100	1000	0	109	51-122	0			
Isopropylbenzene	1071	30	1000	0	107	75-130	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **152184** Instrument ID **VMS11** Method: **SW8260C**

m,p-Xylene	2171	60	2000	0	109	80-125	0	
Methyl iodide	1098	500	1000	0	110	64-180	0	
Methyl tert-butyl ether	1310	30	1000	0	131	75-125	0	S
Methylene chloride	957	250	1000	0	95.7	55-145	0	
Naphthalene	1134	100	1000	0	113	40-140	0	
n-Propylbenzene	1006	30	1000	0	101	65-135	0	
o-Xylene	1094	30	1000	0	109	75-125	0	
Styrene	986.5	30	1000	0	98.6	80-138	0	
Tetrachloroethene	1160	30	1000	0	116	67-167	0	
Toluene	1046	30	1000	0	105	70-125	0	
trans-1,2-Dichloroethene	1090	30	1000	0	109	65-135	0	
trans-1,3-Dichloropropene	1038	30	1000	0	104	59-129	0	
trans-1,4-Dichloro-2-butene	764	30	1000	0	76.4	62-112	0	
Trichloroethene	1070	30	1000	0	107	75-125	0	
Trichlorofluoromethane	948.5	30	1000	0	94.8	25-185	0	
Vinyl chloride	990	30	1000	0	99	60-125	0	
Xylenes, Total	3264	90	3000	0	109	75-125	0	
Surr: 1,2-Dichloroethane-d4	*1004*	0	*1000*	0	*100*	*70-130*	0	
Surr: 4-Bromofluorobenzene	*958.5*	0	*1000*	0	*95.8*	*70-130*	0	
Surr: Dibromofluoromethane	*1008*	0	*1000*	0	*101*	*70-130*	0	
Surr: Toluene-d8	*1031*	0	*1000*	0	*103*	*70-130*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152184** Instrument ID **VMS11** Method: **SW8260C**

MS Sample ID: **20021185-04B MS** Units: **µg/Kg-dry** Analysis Date: **2/22/2020 07:31 AM**

Client ID: Run ID: **VMS11_200221A** SeqNo: **6266709** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1462	48	1590	0	92	75-125	0			
1,1,1-Trichloroethane	1464	48	1590	0	92.1	70-135	0			
1,1,2,2-Tetrachloroethane	1560	48	1590	0	98.2	55-130	0			
1,1,2-Trichloroethane	1645	48	1590	0	104	60-125	0			
1,1-Dichloroethane	1451	48	1590	0	91.3	75-125	0			
1,1-Dichloroethene	1592	48	1590	0	100	76-148	0			
1,2,3-Trichloropropane	1527	48	1590	0	96	65-130	0			
1,2,4-Trichlorobenzene	1594	160	1590	0	100	65-130	0			
1,2,4-Trimethylbenzene	1393	48	1590	0	87.6	65-135	0			
1,2-Dibromo-3-chloropropane	1267	160	1590	0	79.7	40-135	0			
1,2-Dibromoethane	1656	48	1590	0	104	80-195	0			
1,2-Dichlorobenzene	1684	48	1590	0	106	75-120	0			
1,2-Dichloroethane	1462	160	1590	0	92	70-135	0			
1,2-Dichloropropane	1400	48	1590	0	88	70-120	0			
1,3,5-Trimethylbenzene	1543	160	1590	0	97	65-135	0			
1,3-Dichlorobenzene	1755	48	1590	0	110	70-125	0			
1,4-Dichlorobenzene	1639	48	1590	0	103	70-125	0			
2-Butanone	1336	320	1590	0	84	30-160	0			
2-Hexanone	1632	48	1590	0	103	45-145	0			
4-Methyl-2-pentanone	2144	48	1590	0	135	74-176	0			
Acetone	1593	160	1590	0	100	20-160	0			
Acrylonitrile	1406	160	1590	0	88.4	70-135	0			
Benzene	1424	48	1590	0	89.6	75-125	0			
Bromochloromethane	1434	48	1590	0	90.2	74-134	0			
Bromodichloromethane	1288	48	1590	0	81	70-130	0			
Bromoform	1245	48	1590	0	78.3	55-135	0			
Bromomethane	487.2	160	1590	0	30.6	50-170	0			S
Carbon disulfide	1742	48	1590	0	110	45-160	0			
Carbon tetrachloride	1342	48	1590	0	84.4	65-135	0			
Chlorobenzene	1566	48	1590	0	98.5	75-125	0			
Chloroethane	1026	160	1590	0	64.6	40-155	0			
Chloroform	1407	48	1590	0	88.5	66-140	0			
Chloromethane	1463	160	1590	0	92	50-144	0			
cis-1,2-Dichloroethene	1338	48	1590	0	84.2	65-125	0			
cis-1,3-Dichloropropene	1252	48	1590	0	78.8	70-125	0			
Dibromochloromethane	1183	48	1590	0	74.4	65-135	0			
Dibromomethane	1429	48	1590	0	89.9	75-130	0			
Dichlorodifluoromethane	1783	160	1590	0	112	35-135	0			
Diethyl ether	1572	48	1590	0	98.9	67-150	0			
Ethylbenzene	1596	48	1590	0	100	75-125	0			
Hexachloroethane	1519	160	1590	0	95.6	51-122	0			
Isopropylbenzene	1566	48	1590	0	98.5	75-130	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **152184** Instrument ID **VMS11** Method: **SW8260C**

m,p-Xylene	3148	95	3179	0	99	80-125	0
Methyl iodide	1455	790	1590	0	91.6	64-180	0
Methyl tert-butyl ether	1837	48	1590	0	116	75-125	0
Methylene chloride	1445	400	1590	8.43	90.4	55-145	0
Naphthalene	1574	160	1590	0	99	40-140	0
n-Propylbenzene	1443	48	1590	0	90.8	65-135	0
o-Xylene	1607	48	1590	0	101	75-125	0
Styrene	1463	48	1590	0	92	80-138	0
Tetrachloroethene	1811	48	1590	0	114	67-167	0
Toluene	1511	48	1590	0	95	70-125	0
trans-1,2-Dichloroethene	1537	48	1590	0	96.7	65-135	0
trans-1,3-Dichloropropene	1444	48	1590	0	90.8	59-129	0
trans-1,4-Dichloro-2-butene	1021	48	1590	0	64.2	62-112	0
Trichloroethene	1424	48	1590	0	89.6	75-125	0
Trichlorofluoromethane	1561	48	1590	0	98.2	25-185	0
Vinyl chloride	1323	48	1590	0	83.2	60-125	0
Xylenes, Total	4755	140	4769	0	99.7	75-125	0
Surr: 1,2-Dichloroethane-d4	*1662*	0	*1590*	0	*105*	*70-130*	0
Surr: 4-Bromofluorobenzene	*1523*	0	*1590*	0	*95.8*	*70-130*	0
Surr: Dibromofluoromethane	*1631*	0	*1590*	0	*103*	*70-130*	0
Surr: Toluene-d8	*1730*	0	*1590*	0	*109*	*70-130*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152184** Instrument ID **VMS11** Method: **SW8260C**

MSD Sample ID: **20021185-04B MSD** Units: **µg/Kg-dry** Analysis Date: **2/22/2020 07:53 AM**

Client ID: Run ID: **VMS11_200221A** SeqNo: **6266710** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1658	52	1724	0	96.2	75-125	1462	12.5	30	
1,1,1-Trichloroethane	1619	52	1724	0	93.9	70-135	1464	10.1	30	
1,1,2,2-Tetrachloroethane	1771	52	1724	0	103	55-130	1560	12.6	30	
1,1,2-Trichloroethane	1867	52	1724	0	108	60-125	1645	12.6	30	
1,1-Dichloroethane	1572	52	1724	0	91.2	75-125	1451	7.96	30	
1,1-Dichloroethene	1761	52	1724	0	102	76-148	1592	10.1	30	
1,2,3-Trichloropropane	1780	52	1724	0	103	65-130	1527	15.3	30	
1,2,4-Trichlorobenzene	1792	170	1724	0	104	65-130	1594	11.7	30	
1,2,4-Trimethylbenzene	1559	52	1724	0	90.4	65-135	1393	11.2	30	
1,2-Dibromo-3-chloropropane	1408	170	1724	0	81.6	40-135	1267	10.5	30	
1,2-Dibromoethane	1866	52	1724	0	108	80-195	1656	11.9	30	
1,2-Dichlorobenzene	1869	52	1724	0	108	75-120	1684	10.4	30	
1,2-Dichloroethane	1604	170	1724	0	93	70-135	1462	9.26	30	
1,2-Dichloropropane	1511	52	1724	0	87.6	70-120	1400	7.67	30	
1,3,5-Trimethylbenzene	1751	170	1724	0	102	65-135	1543	12.6	30	
1,3-Dichlorobenzene	1891	52	1724	0	110	70-125	1755	7.44	30	
1,4-Dichlorobenzene	1779	52	1724	0	103	70-125	1639	8.22	30	
2-Butanone	1951	340	1724	0	113	30-160	1336	37.4	30	R
2-Hexanone	2400	52	1724	0	139	45-145	1632	38.1	30	R
4-Methyl-2-pentanone	2560	52	1724	0	148	74-176	2144	17.7	30	
Acetone	2909	170	1724	0	169	20-160	1593	58.5	30	SR
Acrylonitrile	1617	170	1724	0	93.8	70-135	1406	14	30	
Benzene	1561	52	1724	0	90.6	75-125	1424	9.18	30	
Bromochloromethane	1524	52	1724	0	88.4	74-134	1434	6.11	30	
Bromodichloromethane	1402	52	1724	0	81.3	70-130	1288	8.43	30	
Bromoform	1468	52	1724	0	85.2	55-135	1245	16.5	30	
Bromomethane	491.4	170	1724	0	28.5	50-170	487.2	0.856	30	S
Carbon disulfide	1888	52	1724	0	110	45-160	1742	8.03	30	
Carbon tetrachloride	1523	52	1724	0	88.3	65-135	1342	12.6	30	
Chlorobenzene	1718	52	1724	0	99.6	75-125	1566	9.28	30	
Chloroethane	975.9	170	1724	0	56.6	40-155	1026	5.01	30	
Chloroform	1554	52	1724	0	90.1	66-140	1407	9.91	30	
Chloromethane	1573	170	1724	0	91.2	50-144	1463	7.2	30	
cis-1,2-Dichloroethene	1491	52	1724	0	86.4	65-125	1338	10.8	30	
cis-1,3-Dichloropropene	1413	52	1724	0	82	70-125	1252	12.1	30	
Dibromochloromethane	1366	52	1724	0	79.2	65-135	1183	14.4	30	
Dibromomethane	1581	52	1724	0	91.7	75-130	1429	10.1	30	
Dichlorodifluoromethane	1919	170	1724	0	111	35-135	1783	7.36	30	
Diethyl ether	1757	52	1724	0	102	67-150	1572	11.1	30	
Ethylbenzene	1743	52	1724	0	101	75-125	1596	8.82	30	
Hexachloroethane	1673	170	1724	0	97	51-122	1519	9.68	30	
Isopropylbenzene	1696	52	1724	0	98.4	75-130	1566	7.97	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **152184** Instrument ID **VMS11** Method: **SW8260C**

m,p-Xylene	3518	100	3449	0	102	80-125	3148	11.1	30	
Methyl iodide	1790	860	1724	0	104	64-180	1455	20.6	30	
Methyl tert-butyl ether	2019	52	1724	0	117	75-125	1837	9.45	30	
Methylene chloride	1545	430	1724	8.43	89.1	55-145	1445	6.69	30	
Naphthalene	1870	170	1724	0	108	40-140	1574	17.2	30	
n-Propylbenzene	1609	52	1724	0	93.3	65-135	1443	10.8	30	
o-Xylene	1752	52	1724	0	102	75-125	1607	8.62	30	
Styrene	1595	52	1724	0	92.5	80-138	1463	8.61	30	
Tetrachloroethene	2624	52	1724	0	152	67-167	1811	36.7	30	R
Toluene	1692	52	1724	0	98.2	70-125	1511	11.3	30	
trans-1,2-Dichloroethene	1653	52	1724	0	95.8	65-135	1537	7.24	30	
trans-1,3-Dichloropropene	1617	52	1724	0	93.8	59-129	1444	11.3	30	
trans-1,4-Dichloro-2-butene	1262	52	1724	0	73.2	62-112	1021	21.1	30	
Trichloroethene	1612	52	1724	0	93.5	75-125	1424	12.4	30	
Trichlorofluoromethane	1807	52	1724	0	105	25-185	1561	14.6	30	
Vinyl chloride	1414	52	1724	0	82	60-125	1323	6.61	30	
Xylenes, Total	5269	160	5173	0	102	75-125	4755	10.3	30	
Surr: 1,2-Dichloroethane-d4	*1819*	0	*1724*	0	*106*	*70-130*	1662	*9.03*	*30*	
Surr: 4-Bromofluorobenzene	*1634*	0	*1724*	0	*94.8*	*70-130*	1523	*7.02*	*30*	
Surr: Dibromofluoromethane	*1722*	0	*1724*	0	*99.8*	*70-130*	1631	*5.41*	*30*	
Surr: Toluene-d8	*1886*	0	*1724*	0	*109*	*70-130*	1730	*8.63*	*30*	

The following samples were analyzed in this batch:

20021144-47A	20021144-48A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R283053A** Instrument ID **VMS9** Method: **SW8260C**

MBLK Sample ID: **VBLKW3-200219-R283053A** Units: **µg/L** Analysis Date: **2/20/2020 07:54 PM**

Client ID: Run ID: **VMS9_200220B** SeqNo: **6263742** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	1.0								
1,2-Dichloroethane	ND	1.0								
2-Butanone	ND	5.0								
Benzene	ND	1.0								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroform	ND	1.0								
Tetrachloroethene	ND	1.0								
Trichloroethene	ND	1.0								
Vinyl chloride	ND	1.0								
Surr: 1,2-Dichloroethane-d4	*20.35*	0	*20*	0	*102*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.45*	0	*20*	0	*97.2*	*80-110*	0			
Surr: Dibromofluoromethane	*17.9*	0	*20*	0	*89.5*	*85-115*	0			
Surr: Toluene-d8	*19.67*	0	*20*	0	*98.4*	*85-110*	0			

LCS Sample ID: **VLCS2-200220-R283053A** Units: **µg/L** Analysis Date: **2/20/2020 06:51 PM**

Client ID: Run ID: **VMS9_200220B** SeqNo: **6263741** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	19.8	1.0	20	0	99	70-145	0			
1,2-Dichloroethane	21.11	1.0	20	0	106	78-125	0			
2-Butanone	24.68	5.0	20	0	123	55-150	0			
Benzene	20.96	1.0	20	0	105	70-130	0			
Carbon tetrachloride	16.9	1.0	20	0	84.5	65-140	0			
Chlorobenzene	20.69	1.0	20	0	103	80-120	0			
Chloroform	19.47	1.0	20	0	97.4	66-135	0			
Tetrachloroethene	21.97	1.0	20	0	110	68-166	0			
Trichloroethene	19.6	1.0	20	0	98	77-125	0			
Vinyl chloride	21.44	1.0	20	0	107	50-136	0			
Surr: 1,2-Dichloroethane-d4	*20.03*	0	*20*	0	*100*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*20.37*	0	*20*	0	*102*	*80-110*	0			
Surr: Dibromofluoromethane	*19.55*	0	*20*	0	*97.8*	*85-115*	0			
Surr: Toluene-d8	*20.21*	0	*20*	0	*101*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R283053A** Instrument ID **VMS9** Method: **SW8260C**

MS Sample ID: **20021144-08A MS** Units: **µg/L** Analysis Date: **2/21/2020 03:37 AM**

Client ID: **S-9R 0-1 TCLP** Run ID: **VMS9_200220B** SeqNo: **6263744** Prep Date: **2/20/2020** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	407.2	20	400	0	102	70-145	0			
1,2-Dichloroethane	395	20	400	0	98.8	78-125	0			
2-Butanone	426.8	100	400	0	107	55-150	0			
Benzene	408.8	20	400	0	102	70-130	0			
Carbon tetrachloride	335.4	20	400	0	83.8	65-140	0			
Chlorobenzene	386.8	20	400	0	96.7	80-120	0			
Chloroform	365	20	400	0	91.2	66-135	0			
Tetrachloroethene	517.6	20	400	0	129	68-166	0			
Trichloroethene	381.6	20	400	0	95.4	77-125	0			
Vinyl chloride	446	20	400	0	112	50-136	0			
Surr: 1,2-Dichloroethane-d4	*392.8*	0	*400*	0	*98.2*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*400.8*	0	*400*	0	*100*	*80-110*	0			
Surr: Dibromofluoromethane	*392*	0	*400*	0	*98*	*85-115*	0			
Surr: Toluene-d8	*397.8*	0	*400*	0	*99.4*	*85-110*	0			

MSD Sample ID: **20021144-08A MSD** Units: **µg/L** Analysis Date: **2/21/2020 03:58 AM**

Client ID: **S-9R 0-1 TCLP** Run ID: **VMS9_200220B** SeqNo: **6263745** Prep Date: **2/20/2020** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	414.8	20	400	0	104	70-145	407.2	1.85	30	
1,2-Dichloroethane	392.8	20	400	0	98.2	78-125	395	0.559	30	
2-Butanone	445.4	100	400	0	111	55-150	426.8	4.27	30	
Benzene	405.8	20	400	0	101	70-130	408.8	0.737	30	
Carbon tetrachloride	344.8	20	400	0	86.2	65-140	335.4	2.76	30	
Chlorobenzene	392.2	20	400	0	98	80-120	386.8	1.39	30	
Chloroform	371.8	20	400	0	93	66-135	365	1.85	30	
Tetrachloroethene	509	20	400	0	127	68-166	517.6	1.68	30	
Trichloroethene	377.4	20	400	0	94.4	77-125	381.6	1.11	30	
Vinyl chloride	453.2	20	400	0	113	50-136	446	1.6	30	
Surr: 1,2-Dichloroethane-d4	*402.8*	0	*400*	0	*101*	*75-120*	392.8	*2.51*	*30*	
Surr: 4-Bromofluorobenzene	*407.2*	0	*400*	0	*102*	*80-110*	400.8	*1.58*	*30*	
Surr: Dibromofluoromethane	*389.4*	0	*400*	0	*97.4*	*85-115*	392	*0.665*	*30*	
Surr: Toluene-d8	*399*	0	*400*	0	*99.8*	*85-110*	397.8	*0.301*	*30*	

The following samples were analyzed in this batch: 20021144-05A 20021144-08A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R283216A** Instrument ID **VMS8** Method: **SW8260C**

MBLK Sample ID: **VBLKW4-200221-R283216A** Units: **µg/L** Analysis Date: **2/22/2020 04:47 AM**

Client ID: Run ID: **VMS8_200221C** SeqNo: **6266604** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	1.0								
1,2-Dichloroethane	ND	1.0								
2-Butanone	ND	5.0								
Benzene	ND	1.0								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroform	ND	1.0								
Tetrachloroethene	ND	1.0								
Trichloroethene	ND	1.0								
Vinyl chloride	ND	1.0								
Surr: 1,2-Dichloroethane-d4	*21.43*	0	*20*	0	*107*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.21*	0	*20*	0	*96*	*80-110*	0			
Surr: Dibromofluoromethane	*20.01*	0	*20*	0	*100*	*85-115*	0			
Surr: Toluene-d8	*23.92*	0	*20*	0	*120*	*85-110*	0			*S*

LCS Sample ID: **VLCSW3-200221-R283216A** Units: **µg/L** Analysis Date: **2/22/2020 03:59 AM**

Client ID: Run ID: **VMS8_200221C** SeqNo: **6266603** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	21.84	1.0	20	0	109	70-145	0			
1,2-Dichloroethane	20.56	1.0	20	0	103	78-125	0			
2-Butanone	25.96	5.0	20	0	130	55-150	0			
Benzene	21.39	1.0	20	0	107	70-130	0			
Carbon tetrachloride	18.31	1.0	20	0	91.6	65-140	0			
Chlorobenzene	22.11	1.0	20	0	111	80-120	0			
Chloroform	21.66	1.0	20	0	108	66-135	0			
Tetrachloroethene	18.27	1.0	20	0	91.4	68-166	0			
Trichloroethene	20.55	1.0	20	0	103	77-125	0			
Vinyl chloride	21.48	1.0	20	0	107	50-136	0			
Surr: 1,2-Dichloroethane-d4	*21.75*	0	*20*	0	*109*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*18.2*	0	*20*	0	*91*	*80-110*	0			
Surr: Dibromofluoromethane	*20.31*	0	*20*	0	*102*	*85-115*	0			
Surr: Toluene-d8	*19.41*	0	*20*	0	*97*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R283216A** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: **20021144-17A MS** Units: **µg/L** Analysis Date: **2/22/2020 09:06 AM**

Client ID: **S-10R 4-5 TCLP** Run ID: **VMS8_200221C** SeqNo: **6266606** Prep Date: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	423.2	20	400	0	106	70-145	0			
1,2-Dichloroethane	382.8	20	400	0	95.7	78-125	0			
2-Butanone	516	100	400	0	129	55-150	0			
Benzene	396.6	20	400	0	99.2	70-130	0			
Carbon tetrachloride	349.2	20	400	0	87.3	65-140	0			
Chlorobenzene	409.8	20	400	0	102	80-120	0			
Chloroform	403.2	20	400	0	101	66-135	0			
Tetrachloroethene	404.2	20	400	0	101	68-166	0			
Trichloroethene	378.8	20	400	0	94.7	77-125	0			
Vinyl chloride	434.6	20	400	0	109	50-136	0			
Surr: 1,2-Dichloroethane-d4	*409.8*	0	*400*	0	*102*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*403.6*	0	*400*	0	*101*	*80-110*	0			
Surr: Dibromofluoromethane	*383.8*	0	*400*	0	*96*	*85-115*	0			
Surr: Toluene-d8	*416.6*	0	*400*	0	*104*	*85-110*	0			

MSD Sample ID: **20021144-17A MSD** Units: **µg/L** Analysis Date: **2/22/2020 09:23 AM**

Client ID: **S-10R 4-5 TCLP** Run ID: **VMS8_200221C** SeqNo: **6266607** Prep Date: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	427	20	400	0	107	70-145	423.2	0.894	30	
1,2-Dichloroethane	382	20	400	0	95.5	78-125	382.8	0.209	30	
2-Butanone	475.2	100	400	0	119	55-150	516	8.23	30	
Benzene	414.2	20	400	0	104	70-130	396.6	4.34	30	
Carbon tetrachloride	374.4	20	400	0	93.6	65-140	349.2	6.97	30	
Chlorobenzene	414.4	20	400	0	104	80-120	409.8	1.12	30	
Chloroform	396.2	20	400	0	99	66-135	403.2	1.75	30	
Tetrachloroethene	403	20	400	0	101	68-166	404.2	0.297	30	
Trichloroethene	373.8	20	400	0	93.4	77-125	378.8	1.33	30	
Vinyl chloride	441	20	400	0	110	50-136	434.6	1.46	30	
Surr: 1,2-Dichloroethane-d4	*419.6*	0	*400*	0	*105*	*75-120*	409.8	*2.36*	*30*	
Surr: 4-Bromofluorobenzene	*382.8*	0	*400*	0	*95.7*	*80-110*	403.6	*5.29*	*30*	
Surr: Dibromofluoromethane	*394.8*	0	*400*	0	*98.7*	*85-115*	383.8	*2.83*	*30*	
Surr: Toluene-d8	*409.8*	0	*400*	0	*102*	*85-110*	416.6	*1.65*	*30*	

The following samples were analyzed in this batch:

20021144-02A	20021144-03A	20021144-04A
20021144-05A	20021144-06A	20021144-07A
20021144-09A	20021144-10A	20021144-11A
20021144-12A	20021144-13A	20021144-14A
20021144-16A	20021144-17A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152129** Instrument ID **WETCHEM** Method: **SW9045D**

LCS Sample ID: **LCS-152129-152129** Units: **s.u.** Analysis Date: **2/19/2020 09:30 AM**
Client ID: Run ID: **WETCHEM_200219C** SeqNo: **6257886** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	3.99	0.10	4	0	99.8	90-110	0			

DUP Sample ID: **20021064-01A DUP** Units: **s.u.** Analysis Date: **2/19/2020 09:30 AM**
Client ID: Run ID: **WETCHEM_200219C** SeqNo: **6257891** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.52	0.10	0	0	0	0-0	7.49	0.4	20	

DUP Sample ID: **20021144-27B DUP** Units: **s.u.** Analysis Date: **2/19/2020 09:30 AM**
Client ID: **S-8R 0-01** Run ID: **WETCHEM_200219C** SeqNo: **6257896** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.59	0.10	0	0	0	0-0	8.61	0.233	20	

The following samples were analyzed in this batch:

20021144-27B	20021144-28B	20021144-29B
20021144-30B	20021144-31B	20021144-32B
20021144-33B	20021144-34B	20021144-35B
20021144-36B	20021144-37B	20021144-38B
20021144-39B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152145** Instrument ID **WETCHEM** Method: **A5210B-11**

MBLK Sample ID: **MBLK-152145-152145** Units: **mg/Kg** Analysis Date: **2/23/2020 01:05 PM**
Client ID: Run ID: **WETCHEM_200223C** SeqNo: **6265184** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Biochemical Oxygen Demand	1	20								

LCS Sample ID: **LCS-152145-152145** Units: **mg/Kg** Analysis Date: **2/23/2020 01:05 PM**
Client ID: Run ID: **WETCHEM_200223C** SeqNo: **6265185** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Biochemical Oxygen Demand	1910	20	1980	0	96.5	85-115	0			

DUP Sample ID: **20021144-35B DUP** Units: **mg/Kg** Analysis Date: **2/23/2020 01:05 PM**
Client ID: **S-9R 3-4** Run ID: **WETCHEM_200223C** SeqNo: **6265195** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Biochemical Oxygen Demand	0.0821	0.020	0	0	0		0.0808	1.6	20	

DUP Sample ID: **20021144-47B DUP** Units: **mg/Kg** Analysis Date: **2/23/2020 01:05 PM**
Client ID: **A-8** Run ID: **WETCHEM_200223C** SeqNo: **6265209** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Biochemical Oxygen Demand	0.2263	0.020	0	0	0		0.2245	0.796	20	

The following samples were analyzed in this batch:

20021144-27B	20021144-28B	20021144-29B
20021144-30B	20021144-31B	20021144-32B
20021144-33B	20021144-34B	20021144-35B
20021144-36B	20021144-37B	20021144-38B
20021144-39B	20021144-40B	20021144-41B
20021144-42B	20021144-44B	20021144-45B
20021144-47B	20021144-48B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152197** Instrument ID **LACHAT2** Method: **E365.1 R2.0**

MBLK Sample ID: **MBLK-152197-152197** Units: **mg/Kg** Analysis Date: **2/21/2020 11:47 AM**
Client ID: Run ID: **LACHAT2_200221A** SeqNo: **6264090** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	ND	5.0								

LCS Sample ID: **LCS-152197-152197** Units: **mg/Kg** Analysis Date: **2/21/2020 11:48 AM**
Client ID: Run ID: **LACHAT2_200221A** SeqNo: **6264091** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	10.53	5.0	10	0	105	90-110	0			

MS Sample ID: **20021144-27B MS** Units: **mg/Kg** Analysis Date: **2/21/2020 11:50 AM**
Client ID: **S-8R 0-01** Run ID: **LACHAT2_200221A** SeqNo: **6264095** Prep Date: **2/19/2020** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	370.9	100	50.51	317.5	106	90-110	0			O

MS Sample ID: **20021144-38B MS** Units: **mg/Kg** Analysis Date: **2/21/2020 01:08 PM**
Client ID: **S-10R 1-2** Run ID: **LACHAT2_200221A** SeqNo: **6264160** Prep Date: **2/19/2020** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	350.8	240	47.17	296.2	116	90-110	0			SO

MSD Sample ID: **20021144-27B MSD** Units: **mg/Kg** Analysis Date: **2/21/2020 11:51 AM**
Client ID: **S-8R 0-01** Run ID: **LACHAT2_200221A** SeqNo: **6264096** Prep Date: **2/19/2020** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	397	100	50	317.5	159	90-110	370.9	6.8	20	SO

MSD Sample ID: **20021144-38B MSD** Units: **mg/Kg** Analysis Date: **2/21/2020 01:09 PM**
Client ID: **S-10R 1-2** Run ID: **LACHAT2_200221A** SeqNo: **6264161** Prep Date: **2/19/2020** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	356.7	240	47.62	296.2	127	90-110	350.8	1.66	20	SO

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152197** Instrument ID **LACHAT2** Method: **E365.1 R2.0**

The following samples were analyzed in this batch:

20021144-27B	20021144-28B	20021144-29B
20021144-30B	20021144-31B	20021144-32B
20021144-33B	20021144-34B	20021144-35B
20021144-36B	20021144-37B	20021144-38B
20021144-39B	20021144-40B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152198** Instrument ID **WETCHEM** Method: **SW9045D**

LCS Sample ID: **LCS-152198-152198** Units: **s.u.** Analysis Date: **2/20/2020 08:00 AM**
Client ID: Run ID: **WETCHEM_200220D** SeqNo: **6260202** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	3.97	0.10	4	0	99.2	90-110	0			

DUP Sample ID: **20021144-40B DUP** Units: **s.u.** Analysis Date: **2/20/2020 08:00 AM**
Client ID: **S-10R 3-4** Run ID: **WETCHEM_200220D** SeqNo: **6260204** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.03	0.10	0	0	0	0-0	8.19	1.97	20	

DUP Sample ID: **20021217-02A DUP** Units: **s.u.** Analysis Date: **2/20/2020 08:00 AM**
Client ID: Run ID: **WETCHEM_200220D** SeqNo: **6260214** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	1.66	0.10	0	0	0	0-0	1.68	1.2	20	

The following samples were analyzed in this batch:

20021144-40B	20021144-41B	20021144-42B
20021144-43B	20021144-44B	20021144-45B
20021144-46B	20021144-47B	20021144-48B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152302** Instrument ID **LACHAT2** Method: **E365.1 R2.0**

MBLK Sample ID: **MBLK-152302-152302** Units: **mg/Kg** Analysis Date: **2/21/2020 02:36 PM**
Client ID: Run ID: **LACHAT2_200221B** SeqNo: **6264350** Prep Date: **2/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	ND	5.0								

LCS Sample ID: **LCS-152302-152302** Units: **mg/Kg** Analysis Date: **2/21/2020 02:37 PM**
Client ID: Run ID: **LACHAT2_200221B** SeqNo: **6264351** Prep Date: **2/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	10.28	5.0	10	0	103	90-110	0			

MS Sample ID: **20021144-41B MS** Units: **mg/Kg** Analysis Date: **2/21/2020 02:06 PM**
Client ID: **S-10R 4-5** Run ID: **LACHAT2_200221B** SeqNo: **6264332** Prep Date: **2/21/2020** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	371.2	100	52.08	267.3	200	90-110	0			SO

MSD Sample ID: **20021144-41B MSD** Units: **mg/Kg** Analysis Date: **2/21/2020 02:08 PM**
Client ID: **S-10R 4-5** Run ID: **LACHAT2_200221B** SeqNo: **6264333** Prep Date: **2/21/2020** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	372.8	100	51.55	267.3	205	90-110	371.2	0.412	20	SO

The following samples were analyzed in this batch:

20021144-41B	20021144-42B	20021144-43B
20021144-44B	20021144-45B	20021144-46B
20021144-47B	20021144-48B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152367** Instrument ID **WETCHEM** Method: **A5210B-11**

MBLK Sample ID: **MBLK-152367-152367** Units: **mg/Kg** Analysis Date: **2/23/2020 01:05 PM**

Client ID: Run ID: **WETCHEM_200223A** SeqNo: **6265659** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Biochemical Oxygen Demand	2	20	0	0	0	0-0	0			

LCS Sample ID: **LCS-152367-152367** Units: **mg/Kg** Analysis Date: **2/23/2020 01:05 PM**

Client ID: Run ID: **WETCHEM_200223A** SeqNo: **6265660** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Biochemical Oxygen Demand	1854	20	1980	0	93.6	85-115	0			

DUP Sample ID: **20021144-46B DUP** Units: **mg/Kg** Analysis Date: **2/23/2020 01:05 PM**

Client ID: **S-12R 4-5** Run ID: **WETCHEM_200223A** SeqNo: **6265663** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Biochemical Oxygen Demand	0.04396	0.020	0	0	0		0.04486	2.02	20	

The following samples were analyzed in this batch:

20021144-43B	20021144-46B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R282990** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R282990** Units: **% of sample** Analysis Date: **2/19/2020 02:31 PM**

Client ID: Run ID: **MOIST_200219B** SeqNo: **6260294** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.10								

LCS Sample ID: **LCS-R282990** Units: **% of sample** Analysis Date: **2/19/2020 02:31 PM**

Client ID: Run ID: **MOIST_200219B** SeqNo: **6260293** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.10	100	0	100	98-102	0			

DUP Sample ID: **20021144-28B DUP** Units: **% of sample** Analysis Date: **2/19/2020 02:31 PM**

Client ID: **S-8R 1-2** Run ID: **MOIST_200219B** SeqNo: **6260274** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	21.62	0.10	0	0	0	0-0	22.86	5.58	10	

DUP Sample ID: **20021144-29B DUP** Units: **% of sample** Analysis Date: **2/19/2020 02:31 PM**

Client ID: **S-8R 2-3** Run ID: **MOIST_200219B** SeqNo: **6260276** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	24.31	0.10	0	0	0	0-0	23.63	2.84	10	

The following samples were analyzed in this batch:

20021144-26B	20021144-27B	20021144-28B
20021144-29B	20021144-30B	20021144-31B
20021144-32B	20021144-33B	20021144-34B
20021144-35B	20021144-36B	20021144-37B
20021144-38B	20021144-39B	20021144-40B
20021144-41B	20021144-42B	20021144-43B
20021144-44B	20021144-45B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R282991** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R282991** Units: **% of sample** Analysis Date: **2/19/2020 03:19 PM**

Client ID: Run ID: **MOIST_200219C** SeqNo: **6260319** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.10								

LCS Sample ID: **LCS-R282991** Units: **% of sample** Analysis Date: **2/19/2020 03:19 PM**

Client ID: Run ID: **MOIST_200219C** SeqNo: **6260318** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.10	100	0	100	98-102	0			

DUP Sample ID: **20021185-01A DUP** Units: **% of sample** Analysis Date: **2/19/2020 03:19 PM**

Client ID: Run ID: **MOIST_200219C** SeqNo: **6260311** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	21.13	0.10	0	0	0	0-0	21.34	0.989	10	

DUP Sample ID: **20021216-01B DUP** Units: **% of sample** Analysis Date: **2/19/2020 03:19 PM**

Client ID: Run ID: **MOIST_200219C** SeqNo: **6260316** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	19.08	0.10	0	0	0	0-0	19.27	0.991	10	

The following samples were analyzed in this batch: 20021144-48B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021144
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R283065** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R283065** Units: **% of sample** Analysis Date: **2/20/2020 02:49 PM**

Client ID: Run ID: **MOIST_200220A** SeqNo: **6263436** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.10								

LCS Sample ID: **LCS-R283065** Units: **% of sample** Analysis Date: **2/20/2020 02:49 PM**

Client ID: Run ID: **MOIST_200220A** SeqNo: **6263435** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.10	100	0	100	98-102	0			

DUP Sample ID: **20021299-01B DUP** Units: **% of sample** Analysis Date: **2/20/2020 02:49 PM**

Client ID: Run ID: **MOIST_200220A** SeqNo: **6263430** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	11.25	0.10	0	0	0	0-0	11.09	1.43	10	

DUP Sample ID: **20021299-03B DUP** Units: **% of sample** Analysis Date: **2/20/2020 02:49 PM**

Client ID: Run ID: **MOIST_200220A** SeqNo: **6263433** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	10.87	0.10	0	0	0	0-0	11.13	2.36	10	

The following samples were analyzed in this batch:

20021144-46B	20021144-47B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Chain of Custody Form

Page 1 of 3

ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

ALS Project Manager: M

ALS Work Order #: 20021144

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name		A	VOCs
Work Order		Project Number	01-5303-3-0001	B	PNAS
Company Name	PM Environmental	Bill To Company	PM Environmental	C	PCBs
Send Report To	Adam Patton	Invoice Attn.	Adam Patton / Accounts Payable	D	MI-10 Metals
Address	4080 W. 11 Mile	Address	Same	E	Nickel, Thorium, Uranium
				F	pH, total phosphorus, BOD
City/State/Zip	Berkley/MI/48072	City/State/Zip	Same	G	TCLP (VOCs, SVOCs, RCRA8) extract and Hold
Phone	517-325-9869	Phone	Same	H	
Fax	—	Fax		I	
e-Mail Address	Patton@pmenv.com			J	

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
	WC-1	2/17/20	16:30	L	1,2	5	✓	✓	✓	✓	✓	✓	✓	G and C only			
	WC-2	2/17/20	16:30	S	4	4	✓	✓	✓	✓	✓	✓	✓	G and C only			
	S-8R 0-1	2/17/20	11:55	S	4	4	✓	✓	✓	✓	✓	✓	✓				
	S-8R 1-2		12:00	S	4	4	✓	✓	✓	✓	✓	✓	✓				
	S-8R 2-3		12:05	S	4	4	✓	✓	✓	✓	✓	✓	✓				
	S-8R 3-4		12:10	S	4	4	✓	✓	✓	✓	✓	✓	✓				
	S-8R 4-5		12:15	S	4	4	✓	✓	✓	✓	✓	✓	✓				
	S-9R 0-1		12:50	S	4	4	✓	✓	✓	✓	✓	✓	✓				
	S-9R 1-2		12:55	S	4	4	✓	✓	✓	✓	✓	✓	✓				
	S-9R 2-3		13:00	S	4	4	✓	✓	✓	✓	✓	✓	✓				

Sampler(s): Please Print & Sign: Jana Beumel Jane Beumel

Shipment Method:

Turnaround Time: (Business Days) ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☐ Other _____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
Jana Beumel	2/18/20	6:45		2/18/20	6:45	
Relinquished by:	Date: 2/18/20	Time: 9:45	Received by (Laboratory):	Date: 2/18/20	Time: 0945	
Logged by (Laboratory): Kw	Date: 2/18/20	Time: 1120	Checked by (Laboratory): M			

ALS Cooler ID	Cooler Temp	QC Package: (Check Box Below)	
SRL	3.2°	☐ Level II: Standard QC	☐ Level III: Raw Data
	4.2°	☐ TRRP LRC	☐ TRRP Level IV
		☐ Level IV: SW846 Methods/CLP like	
		☐ Other: _____	

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.

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☑ ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

ALS Project Manager:	RL	ALS Work Order #:	20021144

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name		A	VOCs
Work Order		Project Number	01-5303-3-0001	B	PNAs
Company Name	PM Environmental	Bill To Company	PM Environmental	C	PCBs
Send Report To	Adam Patton	Invoice Attn.	Adam Patton/Accounts Payable	D	MI-10 Metals
Address	4080 W. 11 Mile	Address	Same	E	Nickel, Thorium, Uranium
				F	pH, total phosphorus, BOD
City/State/Zip	Berkley/MI/48072	City/State/Zip	Same	G	TCLP (VOCs, SVOCs, RCRA8) extract and Hold
Phone	517-325-9869	Phone	Same	H	
Fax	—	Fax		I	
e-Mail Address	Patton@pmenv.com			J	

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
	S-9R 3-4	2/17/20	13:05	S	4	4	✓	✓	✓	✓	✓	✓	✓				
	S-9R 4-5		13:10	S	4	4	✓	✓	✓	✓	✓	✓	✓				
	S-10R 0-1		14:25	S	4	4	✓	✓	✓	✓	✓	✓	✓				
	S-10R 1-2		14:30	S	4	4	✓	✓	✓	✓	✓	✓	✓				
	S-10R 2-3		14:35	S	4	4	✓	✓	✓	✓	✓	✓	✓				
	S-10R 3-4		14:40	S	4	4	✓	✓	✓	✓	✓	✓	✓				
	S-10R 4-5		14:45	S	4	4	✓	✓	✓	✓	✓	✓	✓				
	S-12R 0-1		15:15	S	4	4	✓	✓	✓	✓	✓	✓	✓				
	S-12R 1-2		16:20	S	4	4	✓	✓	✓	✓	✓	✓	✓				
	S-12R 2-3		16:25	S	4	4	✓	✓	✓	✓	✓	✓	✓				

Sampler(s): Please Print & Sign: Jana Beumel *Jana Beumel*

Shipment Method:

Turnaround Time: (Business Days) ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☐ Other _____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
Jana Beumel	2/12/20	6:45		2/18/20	6:45	
Relinquished by:	Date: 2/18/20	Time: 9:45	Received by (Laboratory):	Date: 2/18/20	Time: 0945	
Logged by (Laboratory): KRW	Date: 2/18/20	Time: 1/20	Checked by (Laboratory): RL			

ALS Cooler ID	Cooler Temp	QC Package: (Check Box Below)	
		☐ Level II: Standard QC	☐ Level III: Raw Data
		☐ TRRP LRC	☐ TRRP Level IV
		☐ Level IV: SW846 Methods/CLP like	
		☐ Other: _____	

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.

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☑ ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

ALS Project Manager: M | ALS Work Order #: 2002 1144

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name		A	VOCs
Work Order		Project Number	01-5303-3-0001	B	PNAS
Company Name	PM Environmental	Bill To Company	PM Environmental	C	PCBs
Send Report To	Adam Patton	Invoice Attn.	Adam Patton / Accounts Payable	D	MI-10 Metals
Address	4000 W. 11 Mile	Address	Same	E	Nickel, Thorium, Uranium
				F	pH, total phosphorus, BOD
City/State/Zip	Berkley/MI/48072	City/State/Zip	Same	G	TCLP (VOCs, SVOCs, RCRA8) extract and Hold
Phone	517-325-9869	Phone	Same	H	
Fax	—	Fax		I	
e-Mail Address	Patton@pmenv.com			J	

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
	S-12R 3-4	2/17/20	15:30	S	4	4	✓	✓	✓	✓	✓	✓	✓				
	S-12R 4-5	2/17/20	15:35	S	4	4	✓	✓	✓	✓	✓	✓	✓				
	A-8	2/17/20	PM	S	4	4	✓	✓	✓	✓	✓	✓	✓				
	A-9	2/17/20	PM	S	4	4	✓	✓	✓	✓	✓	✓	✓				
							✓	✓	✓	✓	✓	✓	✓				
							✓	✓	✓	✓	✓	✓	✓				
							✓	✓	✓	✓	✓	✓	✓				
							✓	✓	✓	✓	✓	✓	✓				
							✓	✓	✓	✓	✓	✓	✓				
							✓	✓	✓	✓	✓	✓	✓				

2/17/2020 0945

Sampler(s): Please Print & Sign: Jana Bennel Jane Bennel

Shipment Method:

Turnaround Time: (Business Days) ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☐ Other _____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
Jana Bennel	2/18/20	6:45		2/18/20	6:45	
	2/18/20	9:44		2/18/20	0945	
Logged by (Laboratory): Kew	2/18/20	1120	Checked by (Laboratory): M			

ALS Cooler ID	Cooler Temp	QC Package: (Check Box Below)	
		☐ Level II: Standard QC	☐ Level III: Raw Data
		☐ TRRP LRC	☐ TRRP Level IV
		☐ Level IV: SW846 Methods/CLP like	
		☐ Other: _____	

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.

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Sample Receipt Checklist

Client Name: **PMENV-BERKLEY** Date/Time Received: **18-Feb-20 00:00**

Work Order: **20021144** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 18-Feb-20 (Date) Reviewed by: Alex J. Csaszar (eSignature) 18-Feb-20 (Date)

Matrices: Liquid & Soil
Carrier name: ALSHN

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.2/3.2, 4.2/4.2 C	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	2/18/2020 1:05:48 PM		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

02-Mar-2020

Adam Patton
PM Environmental
4080 West 11 Mile Road
Berkley, MI 48072

Re: **Sediment Project 01-5303-3-0002** Work Order: **20021558**

Dear Adam,

ALS Environmental received 2 samples on 25-Feb-2020 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 29.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

Electronically approved by: Alex J. Csaszar

Alex J. Csaszar
Project Manager

ALS Group, USA

Date: 02-Mar-20

Client: PM Environmental
Project: Sediment Project 01-5303-3-0002
Work Order: **20021558**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
20021558-01	TMW-12	Water		2/20/2020 11:40	2/25/2020 08:00	☐
20021558-02	TMW-13	Water		2/20/2020 13:00	2/25/2020 08:00	☐

Client: PM Environmental
Project: Sediment Project 01-5303-3-0002
Work Order: 20021558

Case Narrative

Samples for the above noted Work Order were received on 02/25/2020. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting. A copy of the laboratory's scope of accreditation is available upon request.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:

Batch R283457b, Method VOC_8260_W, Sample VBLKW2-200226: The concentration in the Method Blank was greater than the quantitation limits for Bromomethane. All samples in the batch were non-detect; therefore, no qualification is needed for this analyte.

Batch R283457b, Method VOC_8260_W, Sample VLCSW2-200226: The LCS recovery was above the upper control limits for Dichlorodifluoromethane. All the sample results in the batch were non-detect. No qualification is necessary for this analyte.

Batch R283457b, Method VOC_8260_W, Sample 20021558-02A MS: The MS recoveries were above the upper control limits for Dichlorodifluoromethane and Methyl tert-butyl ether. The reported results in the parent sample were non-detect, therefore no qualification is necessary.

Extractable Organics:

No other deviations or anomalies were noted.

Metals:

No other deviations or anomalies were noted.

ALS Group, USA

Date: 02-Mar-20

Client: PM Environmental
Project: Sediment Project 01-5303-3-0002
WorkOrder: **20021558**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

ALS Group, USA

Date: *02-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0002
Sample ID: TMW-12
Collection Date: 2/20/2020 11:40 AM

Work Order: 20021558
Lab ID: 20021558-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3511 2/26/20 16:42	Analyst: **RM**
Aroclor 1016	ND		0.20	µg/L	1	2/27/2020 09:22 AM
Aroclor 1221	ND		0.20	µg/L	1	2/27/2020 09:22 AM
Aroclor 1232	ND		0.20	µg/L	1	2/27/2020 09:22 AM
Aroclor 1242	ND		0.20	µg/L	1	2/27/2020 09:22 AM
Aroclor 1248	ND		0.20	µg/L	1	2/27/2020 09:22 AM
Aroclor 1254	ND		0.20	µg/L	1	2/27/2020 09:22 AM
Aroclor 1260	ND		0.20	µg/L	1	2/27/2020 09:22 AM
Aroclor 1262	ND		0.20	µg/L	1	2/27/2020 09:22 AM
Aroclor 1268	ND		0.20	µg/L	1	2/27/2020 09:22 AM
Surr: Decachlorobiphenyl	*113*		*30-150*	*%REC*	1	2/27/2020 09:22 AM
Surr: Tetrachloro-m-xylene	*79.8*		*50-150*	*%REC*	1	2/27/2020 09:22 AM
MERCURY BY CVAA			**SW7470A**		Prep: SW7470 2/28/20 12:40	Analyst: **RSH**
Mercury	**0.00025**		**0.00020**	**mg/L**	1	2/28/2020 01:19 PM
METALS BY ICP-MS			**SW6020B**		Prep: SW3015A 2/28/20 10:24	Analyst: **STP**
Arsenic	**0.013**		**0.0050**	**mg/L**	1	2/28/2020 05:18 PM
Barium	**0.20**		**0.0050**	**mg/L**	1	2/28/2020 05:18 PM
Cadmium	**0.015**		**0.0020**	**mg/L**	1	2/28/2020 05:18 PM
Chromium	**0.046**		**0.0050**	**mg/L**	1	2/28/2020 05:18 PM
Copper	**1.2**		**0.0050**	**mg/L**	1	2/28/2020 05:18 PM
Lead	**0.11**		**0.0050**	**mg/L**	1	2/28/2020 05:18 PM
Nickel	**0.025**		**0.0050**	**mg/L**	1	2/28/2020 05:18 PM
Selenium	ND		0.0050	mg/L	1	2/28/2020 05:18 PM
Silver	ND		0.0050	mg/L	1	2/28/2020 05:18 PM
Thorium	ND		0.0050	mg/L	1	2/28/2020 05:18 PM
Uranium	ND		0.0050	mg/L	1	2/28/2020 05:18 PM
Zinc	**3.3**		**0.10**	**mg/L**	10	2/28/2020 07:27 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**		Prep: SW3511 2/25/20 16:28	Analyst: **EEW**
1-Methylnaphthalene	ND		0.17	µg/L	1	2/25/2020 06:56 PM
2-Chloronaphthalene	ND		0.17	µg/L	1	2/25/2020 06:56 PM
2-Methylnaphthalene	ND		0.17	µg/L	1	2/25/2020 06:56 PM
Acenaphthene	ND		0.17	µg/L	1	2/25/2020 06:56 PM
Acenaphthylene	ND		0.17	µg/L	1	2/25/2020 06:56 PM
Anthracene	ND		0.17	µg/L	1	2/25/2020 06:56 PM
Benzo(a)anthracene	ND		0.17	µg/L	1	2/25/2020 06:56 PM
Benzo(a)pyrene	ND		0.17	µg/L	1	2/25/2020 06:56 PM
Benzo(b)fluoranthene	ND		0.17	µg/L	1	2/25/2020 06:56 PM
Benzo(g,h,i)perylene	ND		0.17	µg/L	1	2/25/2020 06:56 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *02-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0002
Sample ID: TMW-12
Collection Date: 2/20/2020 11:40 AM

Work Order: 20021558
Lab ID: 20021558-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		0.17	µg/L	1	2/25/2020 06:56 PM
Chrysene	ND		0.17	µg/L	1	2/25/2020 06:56 PM
Dibenzo(a,h)anthracene	ND		0.17	µg/L	1	2/25/2020 06:56 PM
Fluoranthene	ND		0.17	µg/L	1	2/25/2020 06:56 PM
Fluorene	ND		0.17	µg/L	1	2/25/2020 06:56 PM
Indeno(1,2,3-cd)pyrene	ND		0.17	µg/L	1	2/25/2020 06:56 PM
Naphthalene	ND		0.17	µg/L	1	2/25/2020 06:56 PM
Phenanthrene	ND		0.17	µg/L	1	2/25/2020 06:56 PM
Pyrene	ND		0.17	µg/L	1	2/25/2020 06:56 PM
Surr: 2-Fluorobiphenyl	*93.1*		*20-140*	*%REC*	1	2/25/2020 06:56 PM
Surr: 4-Terphenyl-d14	*74.1*		*20-172*	*%REC*	1	2/25/2020 06:56 PM
Surr: Nitrobenzene-d5	*47.1*		*10-140*	*%REC*	1	2/25/2020 06:56 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**			Analyst: **JNS**
1,1,1,2-Tetrachloroethane	ND		1.0	µg/L	1	2/27/2020 07:20 AM
1,1,1-Trichloroethane	ND		1.0	µg/L	1	2/27/2020 07:20 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	2/27/2020 07:20 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	2/27/2020 07:20 AM
1,1,2-Trichlorotrifluoroethane	ND		1.0	µg/L	1	2/27/2020 07:20 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	2/27/2020 07:20 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	2/27/2020 07:20 AM
1,2,3-Trichloropropane	ND		1.0	µg/L	1	2/27/2020 07:20 AM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	2/27/2020 07:20 AM
1,2,4-Trimethylbenzene	ND		1.0	µg/L	1	2/27/2020 07:20 AM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	2/27/2020 07:20 AM
1,2-Dibromoethane	ND		1.0	µg/L	1	2/27/2020 07:20 AM
1,2-Dichlorobenzene	ND		1.0	µg/L	1	2/27/2020 07:20 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	2/27/2020 07:20 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	2/27/2020 07:20 AM
1,3,5-Trimethylbenzene	ND		1.0	µg/L	1	2/27/2020 07:20 AM
1,3-Dichlorobenzene	ND		1.0	µg/L	1	2/27/2020 07:20 AM
1,4-Dichlorobenzene	ND		1.0	µg/L	1	2/27/2020 07:20 AM
2-Butanone	ND		5.0	µg/L	1	2/27/2020 07:20 AM
2-Hexanone	ND		5.0	µg/L	1	2/27/2020 07:20 AM
2-Methylnaphthalene	ND		5.0	µg/L	1	2/27/2020 07:20 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	2/27/2020 07:20 AM
Acetone	ND		10	µg/L	1	2/27/2020 07:20 AM
Acrylonitrile	ND		1.0	µg/L	1	2/27/2020 07:20 AM
Benzene	ND		1.0	µg/L	1	2/27/2020 07:20 AM
Bromochloromethane	ND		1.0	µg/L	1	2/27/2020 07:20 AM
Bromodichloromethane	ND		1.0	µg/L	1	2/27/2020 07:20 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *02-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0002
Work Order: 20021558
Sample ID: TMW-12
Lab ID: 20021558-01
Collection Date: 2/20/2020 11:40 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		1.0	µg/L	1	2/27/2020 07:20 AM
Bromomethane	ND		1.0	µg/L	1	2/27/2020 07:20 AM
Carbon disulfide	ND		1.0	µg/L	1	2/27/2020 07:20 AM
Carbon tetrachloride	ND		1.0	µg/L	1	2/27/2020 07:20 AM
Chlorobenzene	ND		1.0	µg/L	1	2/27/2020 07:20 AM
Chloroethane	ND		1.0	µg/L	1	2/27/2020 07:20 AM
Chloroform	ND		1.0	µg/L	1	2/27/2020 07:20 AM
Chloromethane	ND		1.0	µg/L	1	2/27/2020 07:20 AM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	2/27/2020 07:20 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	2/27/2020 07:20 AM
Dibromochloromethane	ND		1.0	µg/L	1	2/27/2020 07:20 AM
Dibromomethane	ND		1.0	µg/L	1	2/27/2020 07:20 AM
Dichlorodifluoromethane	ND		1.0	µg/L	1	2/27/2020 07:20 AM
Diethyl ether	ND		1.0	µg/L	1	2/27/2020 07:20 AM
Ethylbenzene	ND		1.0	µg/L	1	2/27/2020 07:20 AM
Hexachloroethane	ND		1.0	µg/L	1	2/27/2020 07:20 AM
Isopropylbenzene	ND		1.0	µg/L	1	2/27/2020 07:20 AM
m,p-Xylene	ND		2.0	µg/L	1	2/27/2020 07:20 AM
Methyl iodide	ND		5.0	µg/L	1	2/27/2020 07:20 AM
Methyl tert-butyl ether	ND		1.0	µg/L	1	2/27/2020 07:20 AM
Methylene chloride	ND		5.0	µg/L	1	2/27/2020 07:20 AM
Naphthalene	ND		5.0	µg/L	1	2/27/2020 07:20 AM
n-Propylbenzene	ND		1.0	µg/L	1	2/27/2020 07:20 AM
o-Xylene	ND		1.0	µg/L	1	2/27/2020 07:20 AM
Styrene	ND		1.0	µg/L	1	2/27/2020 07:20 AM
Tetrachloroethene	ND		1.0	µg/L	1	2/27/2020 07:20 AM
Toluene	ND		1.0	µg/L	1	2/27/2020 07:20 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	2/27/2020 07:20 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	2/27/2020 07:20 AM
trans-1,4-Dichloro-2-butene	ND		2.0	µg/L	1	2/27/2020 07:20 AM
Trichloroethene	ND		1.0	µg/L	1	2/27/2020 07:20 AM
Trichlorofluoromethane	ND		1.0	µg/L	1	2/27/2020 07:20 AM
Vinyl acetate	ND		5.0	µg/L	1	2/27/2020 07:20 AM
Vinyl chloride	ND		1.0	µg/L	1	2/27/2020 07:20 AM
Xylenes, Total	ND		3.0	µg/L	1	2/27/2020 07:20 AM
Surr: 1,2-Dichloroethane-d4	*98.8*		*75-120*	*%REC*	1	2/27/2020 07:20 AM
Surr: 4-Bromofluorobenzene	*99.2*		*80-110*	*%REC*	1	2/27/2020 07:20 AM
Surr: Dibromofluoromethane	*97.6*		*85-115*	*%REC*	1	2/27/2020 07:20 AM
Surr: Toluene-d8	*97.9*		*85-110*	*%REC*	1	2/27/2020 07:20 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *02-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0002
Sample ID: TMW-13
Collection Date: 2/20/2020 01:00 PM

Work Order: 20021558
Lab ID: 20021558-02
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3511 2/26/20 16:42	Analyst: **RM**
Aroclor 1016	ND		0.20	µg/L	1	2/27/2020 09:06 AM
Aroclor 1221	ND		0.20	µg/L	1	2/27/2020 09:06 AM
Aroclor 1232	ND		0.20	µg/L	1	2/27/2020 09:06 AM
Aroclor 1242	ND		0.20	µg/L	1	2/27/2020 09:06 AM
Aroclor 1248	ND		0.20	µg/L	1	2/27/2020 09:06 AM
Aroclor 1254	ND		0.20	µg/L	1	2/27/2020 09:06 AM
Aroclor 1260	ND		0.20	µg/L	1	2/27/2020 09:06 AM
Aroclor 1262	ND		0.20	µg/L	1	2/27/2020 09:06 AM
Aroclor 1268	ND		0.20	µg/L	1	2/27/2020 09:06 AM
Surr: Decachlorobiphenyl	*100*		*30-150*	*%REC*	1	2/27/2020 09:06 AM
Surr: Tetrachloro-m-xylene	*71.5*		*50-150*	*%REC*	1	2/27/2020 09:06 AM
MERCURY BY CVAA			**SW7470A**		Prep: SW7470 2/28/20 12:40	Analyst: **RSH**
Mercury	ND		0.00020	mg/L	1	2/28/2020 01:21 PM
METALS BY ICP-MS			**SW6020B**		Prep: SW3015A 2/28/20 10:24	Analyst: **STP**
Arsenic	ND		0.0050	mg/L	1	2/28/2020 05:20 PM
Barium	**0.079**		**0.0050**	**mg/L**	1	2/28/2020 05:20 PM
Cadmium	ND		0.0020	mg/L	1	2/28/2020 05:20 PM
Chromium	ND		0.0050	mg/L	1	2/28/2020 05:20 PM
Copper	**0.016**		**0.0050**	**mg/L**	1	2/28/2020 05:20 PM
Lead	ND		0.0050	mg/L	1	2/28/2020 05:20 PM
Nickel	**0.0079**		**0.0050**	**mg/L**	1	2/28/2020 05:20 PM
Selenium	ND		0.0050	mg/L	1	2/28/2020 05:20 PM
Silver	ND		0.0050	mg/L	1	2/28/2020 05:20 PM
Thorium	ND		0.0050	mg/L	1	2/28/2020 05:20 PM
Uranium	**0.011**		**0.0050**	**mg/L**	1	2/28/2020 05:20 PM
Zinc	**0.67**		**0.010**	**mg/L**	1	2/28/2020 05:20 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**		Prep: SW3511 2/25/20 16:28	Analyst: **EEW**
1-Methylnaphthalene	ND		0.17	µg/L	1	2/25/2020 06:41 PM
2-Chloronaphthalene	ND		0.17	µg/L	1	2/25/2020 06:41 PM
2-Methylnaphthalene	ND		0.17	µg/L	1	2/25/2020 06:41 PM
Acenaphthene	ND		0.17	µg/L	1	2/25/2020 06:41 PM
Acenaphthylene	ND		0.17	µg/L	1	2/25/2020 06:41 PM
Anthracene	ND		0.17	µg/L	1	2/25/2020 06:41 PM
Benzo(a)anthracene	ND		0.17	µg/L	1	2/25/2020 06:41 PM
Benzo(a)pyrene	ND		0.17	µg/L	1	2/25/2020 06:41 PM
Benzo(b)fluoranthene	ND		0.17	µg/L	1	2/25/2020 06:41 PM
Benzo(g,h,i)perylene	ND		0.17	µg/L	1	2/25/2020 06:41 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *02-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0002
Work Order: 20021558
Sample ID: TMW-13
Lab ID: 20021558-02
Collection Date: 2/20/2020 01:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		0.17	µg/L	1	2/25/2020 06:41 PM
Chrysene	ND		0.17	µg/L	1	2/25/2020 06:41 PM
Dibenzo(a,h)anthracene	ND		0.17	µg/L	1	2/25/2020 06:41 PM
Fluoranthene	ND		0.17	µg/L	1	2/25/2020 06:41 PM
Fluorene	ND		0.17	µg/L	1	2/25/2020 06:41 PM
Indeno(1,2,3-cd)pyrene	ND		0.17	µg/L	1	2/25/2020 06:41 PM
Naphthalene	ND		0.17	µg/L	1	2/25/2020 06:41 PM
Phenanthrene	ND		0.17	µg/L	1	2/25/2020 06:41 PM
Pyrene	ND		0.17	µg/L	1	2/25/2020 06:41 PM
Surr: 2-Fluorobiphenyl	*101*		*20-140*	*%REC*	1	2/25/2020 06:41 PM
Surr: 4-Terphenyl-d14	*73.6*		*20-172*	*%REC*	1	2/25/2020 06:41 PM
Surr: Nitrobenzene-d5	*52.0*		*10-140*	*%REC*	1	2/25/2020 06:41 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**			Analyst: **JNS**
1,1,1,2-Tetrachloroethane	ND		1.0	µg/L	1	2/27/2020 07:44 AM
1,1,1-Trichloroethane	ND		1.0	µg/L	1	2/27/2020 07:44 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	2/27/2020 07:44 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	2/27/2020 07:44 AM
1,1,2-Trichlorotrifluoroethane	ND		1.0	µg/L	1	2/27/2020 07:44 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	2/27/2020 07:44 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	2/27/2020 07:44 AM
1,2,3-Trichloropropane	ND		1.0	µg/L	1	2/27/2020 07:44 AM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	2/27/2020 07:44 AM
1,2,4-Trimethylbenzene	ND		1.0	µg/L	1	2/27/2020 07:44 AM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	2/27/2020 07:44 AM
1,2-Dibromoethane	ND		1.0	µg/L	1	2/27/2020 07:44 AM
1,2-Dichlorobenzene	ND		1.0	µg/L	1	2/27/2020 07:44 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	2/27/2020 07:44 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	2/27/2020 07:44 AM
1,3,5-Trimethylbenzene	ND		1.0	µg/L	1	2/27/2020 07:44 AM
1,3-Dichlorobenzene	ND		1.0	µg/L	1	2/27/2020 07:44 AM
1,4-Dichlorobenzene	ND		1.0	µg/L	1	2/27/2020 07:44 AM
2-Butanone	ND		5.0	µg/L	1	2/27/2020 07:44 AM
2-Hexanone	ND		5.0	µg/L	1	2/27/2020 07:44 AM
2-Methylnaphthalene	ND		5.0	µg/L	1	2/27/2020 07:44 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	2/27/2020 07:44 AM
Acetone	ND		10	µg/L	1	2/27/2020 07:44 AM
Acrylonitrile	ND		1.0	µg/L	1	2/27/2020 07:44 AM
Benzene	ND		1.0	µg/L	1	2/27/2020 07:44 AM
Bromochloromethane	ND		1.0	µg/L	1	2/27/2020 07:44 AM
Bromodichloromethane	ND		1.0	µg/L	1	2/27/2020 07:44 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *02-Mar-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0002
Work Order: 20021558
Sample ID: TMW-13
Lab ID: 20021558-02
Collection Date: 2/20/2020 01:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		1.0	µg/L	1	2/27/2020 07:44 AM
Bromomethane	ND		1.0	µg/L	1	2/27/2020 07:44 AM
Carbon disulfide	ND		1.0	µg/L	1	2/27/2020 07:44 AM
Carbon tetrachloride	ND		1.0	µg/L	1	2/27/2020 07:44 AM
Chlorobenzene	ND		1.0	µg/L	1	2/27/2020 07:44 AM
Chloroethane	ND		1.0	µg/L	1	2/27/2020 07:44 AM
Chloroform	ND		1.0	µg/L	1	2/27/2020 07:44 AM
Chloromethane	ND		1.0	µg/L	1	2/27/2020 07:44 AM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	2/27/2020 07:44 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	2/27/2020 07:44 AM
Dibromochloromethane	ND		1.0	µg/L	1	2/27/2020 07:44 AM
Dibromomethane	ND		1.0	µg/L	1	2/27/2020 07:44 AM
Dichlorodifluoromethane	ND		1.0	µg/L	1	2/27/2020 07:44 AM
Diethyl ether	ND		1.0	µg/L	1	2/27/2020 07:44 AM
Ethylbenzene	ND		1.0	µg/L	1	2/27/2020 07:44 AM
Hexachloroethane	ND		1.0	µg/L	1	2/27/2020 07:44 AM
Isopropylbenzene	ND		1.0	µg/L	1	2/27/2020 07:44 AM
m,p-Xylene	ND		2.0	µg/L	1	2/27/2020 07:44 AM
Methyl iodide	ND		5.0	µg/L	1	2/27/2020 07:44 AM
Methyl tert-butyl ether	ND		1.0	µg/L	1	2/27/2020 07:44 AM
Methylene chloride	ND		5.0	µg/L	1	2/27/2020 07:44 AM
Naphthalene	ND		5.0	µg/L	1	2/27/2020 07:44 AM
n-Propylbenzene	ND		1.0	µg/L	1	2/27/2020 07:44 AM
o-Xylene	ND		1.0	µg/L	1	2/27/2020 07:44 AM
Styrene	ND		1.0	µg/L	1	2/27/2020 07:44 AM
Tetrachloroethene	ND		1.0	µg/L	1	2/27/2020 07:44 AM
Toluene	ND		1.0	µg/L	1	2/27/2020 07:44 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	2/27/2020 07:44 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	2/27/2020 07:44 AM
trans-1,4-Dichloro-2-butene	ND		2.0	µg/L	1	2/27/2020 07:44 AM
Trichloroethene	ND		1.0	µg/L	1	2/27/2020 07:44 AM
Trichlorofluoromethane	ND		1.0	µg/L	1	2/27/2020 07:44 AM
Vinyl acetate	ND		5.0	µg/L	1	2/27/2020 07:44 AM
Vinyl chloride	ND		1.0	µg/L	1	2/27/2020 07:44 AM
Xylenes, Total	ND		3.0	µg/L	1	2/27/2020 07:44 AM
Surr: 1,2-Dichloroethane-d4	*100*		*75-120*	*%REC*	1	2/27/2020 07:44 AM
Surr: 4-Bromofluorobenzene	*95.6*		*80-110*	*%REC*	1	2/27/2020 07:44 AM
Surr: Dibromofluoromethane	*96.4*		*85-115*	*%REC*	1	2/27/2020 07:44 AM
Surr: Toluene-d8	*99.3*		*85-110*	*%REC*	1	2/27/2020 07:44 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 02-Mar-20

Client: PM Environmental
Work Order: 20021558
Project: Sediment Project 01-5303-3-0002

QC BATCH REPORT

Batch ID: **152523** Instrument ID **GC14** Method: **SW8082**

MBLK Sample ID: **PBLKW1-152523-152523** Units: **µg/L** Analysis Date: **2/27/2020 08:04 AM**

Client ID: Run ID: **GC14_200226A** SeqNo: **6275134** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	0.20								
Aroclor 1221	ND	0.20								
Aroclor 1232	ND	0.20								
Aroclor 1242	ND	0.20								
Aroclor 1248	ND	0.20								
Aroclor 1254	ND	0.20								
Aroclor 1260	ND	0.20								
Aroclor 1262	ND	0.20								
Aroclor 1268	ND	0.20								
Surr: Decachlorobiphenyl	*0.2075*	0	*0.208*	0	*99.8*	*30-150*	0			
Surr: Tetrachloro-m-xylene	*0.1566*	0	*0.208*	0	*75.3*	*50-150*	0			

LCS Sample ID: **PLCSW1-152523-152523** Units: **µg/L** Analysis Date: **2/27/2020 08:20 AM**

Client ID: Run ID: **GC14_200226A** SeqNo: **6275135** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	4.498	0.20	4.17	0	108	50-150	0			
Aroclor 1260	4.334	0.20	4.17	0	104	50-150	0			
Surr: Decachlorobiphenyl	*0.2121*	0	*0.208*	0	*102*	*30-150*	0			
Surr: Tetrachloro-m-xylene	*0.1734*	0	*0.208*	0	*83.3*	*50-150*	0			

MS Sample ID: **20021558-02B MS** Units: **µg/L** Analysis Date: **2/27/2020 08:35 AM**

Client ID: **TMW-13** Run ID: **GC14_200226A** SeqNo: **6275196** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	4.099	0.20	4.17	0	98.3	50-150	0			
Aroclor 1260	4.171	0.20	4.17	0	100	50-150	0			
Surr: Decachlorobiphenyl	*0.212*	0	*0.208*	0	*102*	*30-150*	0			
Surr: Tetrachloro-m-xylene	*0.1634*	0	*0.208*	0	*78.5*	*50-150*	0			

MSD Sample ID: **20021558-02B MSD** Units: **µg/L** Analysis Date: **2/27/2020 08:51 AM**

Client ID: **TMW-13** Run ID: **GC14_200226A** SeqNo: **6275197** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	3.976	0.20	4.17	0	95.4	50-150	4.099	3.04	50	
Aroclor 1260	3.945	0.20	4.17	0	94.6	50-150	4.171	5.56	50	
Surr: Decachlorobiphenyl	*0.2143*	0	*0.208*	0	*103*	*30-150*	0.212	*1.06*	*50*	
Surr: Tetrachloro-m-xylene	*0.173*	0	*0.208*	0	*83.2*	*50-150*	0.1634	*5.74*	*50*	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021558
Project: Sediment Project 01-5303-3-0002

QC BATCH REPORT

Batch ID: **152523** Instrument ID **GC14** Method: **SW8082**

The following samples were analyzed in this batch:

20021558-01B	20021558-02B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021558
Project: Sediment Project 01-5303-3-0002

QC BATCH REPORT

Batch ID: **152630** Instrument ID **HG4** Method: **SW7470A**

MBLK Sample ID: **MBLK-152630-152630** Units: **mg/L** Analysis Date: **2/28/2020 01:02 PM**
Client ID: Run ID: **HG4_200228A** SeqNo: **6277431** Prep Date: **2/28/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS Sample ID: **LCS-152630-152630** Units: **mg/L** Analysis Date: **2/28/2020 01:04 PM**
Client ID: Run ID: **HG4_200228A** SeqNo: **6277432** Prep Date: **2/28/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00196	0.00020	0.002	0	98	80-120	0			

MS Sample ID: **20021280-01CMS** Units: **mg/L** Analysis Date: **2/28/2020 01:14 PM**
Client ID: Run ID: **HG4_200228A** SeqNo: **6277437** Prep Date: **2/28/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00203	0.00020	0.002	0.000059	98.6	75-125	0			

MSD Sample ID: **20021280-01CMSD** Units: **mg/L** Analysis Date: **2/28/2020 01:17 PM**
Client ID: Run ID: **HG4_200228A** SeqNo: **6277438** Prep Date: **2/28/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00205	0.00020	0.002	0.000059	99.6	75-125	0.00203	0.98	20	

The following samples were analyzed in this batch:

20021558-01C	20021558-02C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021558
Project: Sediment Project 01-5303-3-0002

QC BATCH REPORT

Batch ID: **152618** Instrument ID **ICPMS3** Method: **SW6020B**

MBLK Sample ID: **MBLK-152618-152618** Units: **mg/L** Analysis Date: **2/28/2020 03:59 PM**

Client ID: Run ID: **ICPMS3_200228A** SeqNo: **6277908** Prep Date: **2/28/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.0050								
Barium	ND	0.0050								
Cadmium	ND	0.0020								
Chromium	ND	0.0050								
Copper	ND	0.0050								
Lead	ND	0.0050								
Nickel	ND	0.0050								
Selenium	ND	0.0050								
Silver	ND	0.0050								
Thorium	ND	0.0050								
Uranium	ND	0.0050								
Zinc	ND	0.010								

LCS Sample ID: **LCS-152618-152618** Units: **mg/L** Analysis Date: **2/28/2020 04:00 PM**

Client ID: Run ID: **ICPMS3_200228A** SeqNo: **6277909** Prep Date: **2/28/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.09678	0.0050	0.1	0	96.8	80-120	0			
Barium	0.09876	0.0050	0.1	0	98.8	80-120	0			
Cadmium	0.09936	0.0020	0.1	0	99.4	80-120	0			
Chromium	0.1006	0.0050	0.1	0	101	80-120	0			
Copper	0.1027	0.0050	0.1	0	103	80-120	0			
Lead	0.09964	0.0050	0.1	0	99.6	80-120	0			
Nickel	0.1006	0.0050	0.1	0	101	80-120	0			
Selenium	0.09467	0.0050	0.1	0	94.7	80-120	0			
Silver	0.1022	0.0050	0.1	0	102	80-120	0			
Thorium	0.09069	0.0050	0.1	0	90.7	80-120	0			
Uranium	0.08822	0.0050	0.1	0	88.2	80-120	0			
Zinc	0.09872	0.010	0.1	0	98.7	80-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021558
Project: Sediment Project 01-5303-3-0002

QC BATCH REPORT

Batch ID: **152618** Instrument ID **ICPMS3** Method: **SW6020B**

MS Sample ID: **20021768-01AMS** Units: **mg/L** Analysis Date: **2/28/2020 05:37 PM**

Client ID: Run ID: **ICPMS3_200228A** SeqNo: **6278134** Prep Date: **2/28/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	1.01	0.050	1	0.001397	101	75-125	0			
Barium	1.247	0.050	1	0.2724	97.4	75-125	0			
Cadmium	0.9418	0.020	1	0.00352	93.8	75-125	0			
Chromium	1.01	0.050	1	0.003377	101	75-125	0			
Copper	0.9673	0.050	1	-0.001166	96.8	75-125	0			
Lead	1.029	0.050	1	0.03416	99.5	75-125	0			
Nickel	0.9556	0.050	1	0.002266	95.3	75-125	0			
Selenium	1.004	0.050	1	0.003773	100	75-125	0			
Silver	0.9323	0.050	1	0.000132	93.2	75-125	0			
Thorium	0.9108	0.050	1	0.000385	91	75-125	0			
Uranium	0.8836	0.050	1	0.000022	88.4	75-125	0			
Zinc	0.9946	0.10	1	0.06106	93.4	75-125	0			

MSD Sample ID: **20021768-01AMSD** Units: **mg/L** Analysis Date: **2/28/2020 05:39 PM**

Client ID: Run ID: **ICPMS3_200228A** SeqNo: **6278135** Prep Date: **2/28/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	1.031	0.050	1	0.001397	103	75-125	1.01	2.11	20	
Barium	1.249	0.050	1	0.2724	97.7	75-125	1.247	0.204	20	
Cadmium	0.954	0.020	1	0.00352	95	75-125	0.9418	1.29	20	
Chromium	1.026	0.050	1	0.003377	102	75-125	1.01	1.6	20	
Copper	0.9815	0.050	1	-0.001166	98.3	75-125	0.9673	1.46	20	
Lead	1.029	0.050	1	0.03416	99.5	75-125	1.029	0.0203	20	
Nickel	0.968	0.050	1	0.002266	96.6	75-125	0.9556	1.29	20	
Selenium	0.991	0.050	1	0.003773	98.7	75-125	1.004	1.26	20	
Silver	0.9343	0.050	1	0.000132	93.4	75-125	0.9323	0.214	20	
Thorium	0.9127	0.050	1	0.000385	91.2	75-125	0.9108	0.201	20	
Uranium	0.8776	0.050	1	0.000022	87.8	75-125	0.8836	0.683	20	
Zinc	1.015	0.10	1	0.06106	95.4	75-125	0.9946	2	20	

The following samples were analyzed in this batch:

20021558-01C	20021558-02C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021558
Project: Sediment Project 01-5303-3-0002

QC BATCH REPORT

Batch ID: **152455** Instrument ID **SVMS6** Method: **SW846 8270D**

MBLK Sample ID: **SBLKW1-152455-152455** Units: **µg/L** Analysis Date: **2/25/2020 05:23 PM**

Client ID: Run ID: **SVMS6_200225A** SeqNo: **6271240** Prep Date: **2/25/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	0.17								
2-Chloronaphthalene	ND	0.17								
2-Methylnaphthalene	ND	0.17								
Acenaphthene	ND	0.17								
Acenaphthylene	ND	0.17								
Anthracene	ND	0.17								
Benzo(a)anthracene	ND	0.17								
Benzo(a)pyrene	ND	0.17								
Benzo(b)fluoranthene	ND	0.17								
Benzo(g,h,i)perylene	ND	0.17								
Benzo(k)fluoranthene	ND	0.17								
Chrysene	ND	0.17								
Dibenzo(a,h)anthracene	ND	0.17								
Fluoranthene	ND	0.17								
Fluorene	ND	0.17								
Indeno(1,2,3-cd)pyrene	ND	0.17								
Naphthalene	ND	0.17								
Phenanthrene	ND	0.17								
Pyrene	ND	0.17								
Surr: 2-Fluorobiphenyl	*37.48*	0	*41.7*	0	*89.9*	*20-140*		0		
Surr: 4-Terphenyl-d14	*37.94*	0	*41.7*	0	*91*	*20-172*		0		
Surr: Nitrobenzene-d5	*17.23*	0	*41.7*	0	*41.3*	*10-140*		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021558
Project: Sediment Project 01-5303-3-0002

QC BATCH REPORT

Batch ID: **152455** Instrument ID **SVMS6** Method: **SW846 8270D**

LCS Sample ID: **SLCSW1-152455-152455** Units: **µg/L** Analysis Date: **2/25/2020 05:54 PM**

Client ID: Run ID: **SVMS6_200225A** SeqNo: **6271244** Prep Date: **2/25/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	32.59	0.17	33.3	0	97.9	40-140	0			
2-Chloronaphthalene	34.15	0.17	33.3	0	103	40-140	0			
2-Methylnaphthalene	35.47	0.17	33.3	0	107	40-140	0			
Acenaphthene	32.48	0.17	33.3	0	97.5	40-140	0			
Acenaphthylene	32.78	0.17	33.3	0	98.4	40-140	0			
Anthracene	35.69	0.17	33.3	0	107	40-140	0			
Benzo(a)anthracene	35.27	0.17	33.3	0	106	40-140	0			
Benzo(a)pyrene	33.26	0.17	33.3	0	99.9	40-140	0			
Benzo(b)fluoranthene	33.26	0.17	33.3	0	99.9	40-140	0			
Benzo(g,h,i)perylene	34.15	0.17	33.3	0	103	40-140	0			
Benzo(k)fluoranthene	31.54	0.17	33.3	0	94.7	40-140	0			
Chrysene	32.47	0.17	33.3	0	97.5	40-140	0			
Dibenzo(a,h)anthracene	33.62	0.17	33.3	0	101	40-140	0			
Fluoranthene	34.4	0.17	33.3	0	103	40-140	0			
Fluorene	34.19	0.17	33.3	0	103	40-140	0			
Indeno(1,2,3-cd)pyrene	36.07	0.17	33.3	0	108	40-140	0			
Naphthalene	33.22	0.17	33.3	0	99.8	40-140	0			
Phenanthrene	34.32	0.17	33.3	0	103	40-140	0			
Pyrene	30.33	0.17	33.3	0	91.1	40-140	0			
Surr: 2-Fluorobiphenyl	*40.95*	0	*41.7*	0	*98.2*	*20-140*	0			
Surr: 4-Terphenyl-d14	*38.35*	0	*41.7*	0	*92*	*20-172*	0			
Surr: Nitrobenzene-d5	*21.95*	0	*41.7*	0	*52.6*	*10-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021558
Project: Sediment Project 01-5303-3-0002

QC BATCH REPORT

Batch ID: **152455** Instrument ID **SVMS6** Method: **SW846 8270D**

MS Sample ID: **20021558-02B MS** Units: **µg/L** Analysis Date: **2/25/2020 06:10 PM**

Client ID: **TMW-13** Run ID: **SVMS6_200225A** SeqNo: **6271245** Prep Date: **2/25/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	32.6	0.17	33.3	0	97.9	40-140	0			
2-Chloronaphthalene	33.93	0.17	33.3	0	102	40-140	0			
2-Methylnaphthalene	35.01	0.17	33.3	0	105	40-140	0			
Acenaphthene	32.12	0.17	33.3	0	96.5	40-140	0			
Acenaphthylene	32.45	0.17	33.3	0	97.4	40-140	0			
Anthracene	34.92	0.17	33.3	0.024	105	40-140	0			
Benzo(a)anthracene	35.33	0.17	33.3	0	106	40-140	0			
Benzo(a)pyrene	32.15	0.17	33.3	0	96.6	40-140	0			
Benzo(b)fluoranthene	34.63	0.17	33.3	0	104	40-140	0			
Benzo(g,h,i)perylene	33.29	0.17	33.3	0	100	40-140	0			
Benzo(k)fluoranthene	27.64	0.17	33.3	0	83	40-140	0			
Chrysene	31.75	0.17	33.3	0	95.3	40-140	0			
Dibenzo(a,h)anthracene	32.2	0.17	33.3	0	96.7	40-140	0			
Fluoranthene	33.27	0.17	33.3	0.05183	99.8	40-140	0			
Fluorene	33.38	0.17	33.3	0	100	40-140	0			
Indeno(1,2,3-cd)pyrene	36.01	0.17	33.3	0	108	40-140	0			
Naphthalene	33.37	0.17	33.3	0	100	40-140	0			
Phenanthrene	33.46	0.17	33.3	0	100	40-140	0			
Pyrene	28.53	0.17	33.3	0.05283	85.5	40-140	0			
Surr: 2-Fluorobiphenyl	*40.34*	0	*41.7*	0	*96.7*	*20-140*	0			
Surr: 4-Terphenyl-d14	*27.86*	0	*41.7*	0	*66.8*	*20-172*	0			
Surr: Nitrobenzene-d5	*20.61*	0	*41.7*	0	*49.4*	*10-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021558
Project: Sediment Project 01-5303-3-0002

QC BATCH REPORT

Batch ID: **152455** Instrument ID **SVMS6** Method: **SW846 8270D**

MSD Sample ID: **20021558-02B MSD** Units: **µg/L** Analysis Date: **2/25/2020 06:25 PM**

Client ID: **TMW-13** Run ID: **SVMS6_200225A** SeqNo: **6271247** Prep Date: **2/25/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	35.11	0.17	33.3	0	105	40-140	32.6	7.42	30	
2-Chloronaphthalene	37.12	0.17	33.3	0	111	40-140	33.93	8.99	30	
2-Methylnaphthalene	38.54	0.17	33.3	0	116	40-140	35.01	9.6	30	
Acenaphthene	35.83	0.17	33.3	0	108	40-140	32.12	10.9	30	
Acenaphthylene	35.85	0.17	33.3	0	108	40-140	32.45	9.95	30	
Anthracene	39.05	0.17	33.3	0.024	117	40-140	34.92	11.1	30	
Benzo(a)anthracene	39.63	0.17	33.3	0	119	40-140	35.33	11.5	30	
Benzo(a)pyrene	35.55	0.17	33.3	0	107	40-140	32.15	10	30	
Benzo(b)fluoranthene	37.18	0.17	33.3	0	112	40-140	34.63	7.1	30	
Benzo(g,h,i)perylene	37.76	0.17	33.3	0	113	40-140	33.29	12.6	30	
Benzo(k)fluoranthene	32.53	0.17	33.3	0	97.7	40-140	27.64	16.3	30	
Chrysene	34.6	0.17	33.3	0	104	40-140	31.75	8.62	30	
Dibenzo(a,h)anthracene	35.8	0.17	33.3	0	108	40-140	32.2	10.6	30	
Fluoranthene	36.85	0.17	33.3	0.05183	111	40-140	33.27	10.2	30	
Fluorene	36.89	0.17	33.3	0	111	40-140	33.38	10	30	
Indeno(1,2,3-cd)pyrene	38.77	0.17	33.3	0	116	40-140	36.01	7.39	30	
Naphthalene	35.94	0.17	33.3	0	108	40-140	33.37	7.39	30	
Phenanthrene	37.63	0.17	33.3	0	113	40-140	33.46	11.7	30	
Pyrene	31.94	0.17	33.3	0.05283	95.8	40-140	28.53	11.3	30	
Surr: 2-Fluorobiphenyl	*44.41*	0	*41.7*	0	*106*	*20-140*	40.34	*9.59*	*30*	
Surr: 4-Terphenyl-d14	*34.1*	0	*41.7*	0	*81.8*	*20-172*	27.86	*20.2*	*30*	
Surr: Nitrobenzene-d5	*22.95*	0	*41.7*	0	*55*	*10-140*	20.61	*10.8*	*30*	

The following samples were analyzed in this batch: 20021558-01B 20021558-02B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021558
Project: Sediment Project 01-5303-3-0002

QC BATCH REPORT

Batch ID: **R283457b** Instrument ID **VMS6** Method: **SW8260C**

MBLK Sample ID: **VBLKW2-200226-R283457b** Units: **µg/L** Analysis Date: **2/27/2020 02:52 AM**

Client ID: Run ID: **VMS6_200226B** SeqNo: **6273647** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
1,1,2-Trichlorotrifluoroethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2,3-Trichloropropane	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	1.0								
1,2-Dibromoethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,2-Dichloroethane	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
2-Butanone	ND	5.0								
2-Hexanone	ND	5.0								
2-Methylnaphthalene	ND	5.0								
4-Methyl-2-pentanone	ND	1.0								
Acetone	ND	10								
Acrylonitrile	ND	1.0								
Benzene	ND	1.0								
Bromochloromethane	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	1.04	1.0								
Carbon disulfide	ND	1.0								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	1.0								
Chloroform	ND	1.0								
Chloromethane	ND	1.0								
cis-1,2-Dichloroethene	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
Diethyl ether	ND	1.0								
Ethylbenzene	ND	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R283457b** Instrument ID **VMS6** Method: **SW8260C**

Hexachloroethane	ND	1.0					
Isopropylbenzene	ND	1.0					
m,p-Xylene	ND	2.0					
Methyl iodide	ND	5.0					
Methyl tert-butyl ether	ND	1.0					
Methylene chloride	ND	5.0					
Naphthalene	ND	5.0					
n-Propylbenzene	ND	1.0					
o-Xylene	ND	1.0					
Styrene	ND	1.0					
Tetrachloroethene	ND	1.0					
Toluene	ND	1.0					
trans-1,2-Dichloroethene	ND	1.0					
trans-1,3-Dichloropropene	ND	1.0					
trans-1,4-Dichloro-2-butene	ND	2.0					
Trichloroethene	ND	1.0					
Trichlorofluoromethane	ND	1.0					
Vinyl acetate	ND	5.0					
Vinyl chloride	ND	1.0					
Xylenes, Total	ND	3.0					
Surr: 1,2-Dichloroethane-d4	*20.36*	0	*20*	0	*102*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.78*	0	*20*	0	*98.9*	*80-110*	0
Surr: Dibromofluoromethane	*19.72*	0	*20*	0	*98.6*	*85-115*	0
Surr: Toluene-d8	*19.55*	0	*20*	0	*97.8*	*85-110*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021558
Project: Sediment Project 01-5303-3-0002

QC BATCH REPORT

Batch ID: **R283457b** Instrument ID **VMS6** Method: **SW8260C**

LCS Sample ID: **VLCSW2-200226-R283457b** Units: **µg/L** Analysis Date: **2/27/2020 01:40 AM**

Client ID: Run ID: **VMS6_200226B** SeqNo: **6273644** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	16.36	1.0	20	0	81.8	73-114	0			
1,1,1-Trichloroethane	20.06	1.0	20	0	100	75-130	0			
1,1,2,2-Tetrachloroethane	20.1	1.0	20	0	100	75-130	0			
1,1,2-Trichloroethane	18.78	1.0	20	0	93.9	75-125	0			
1,1-Dichloroethane	19.36	1.0	20	0	96.8	68-142	0			
1,1-Dichloroethene	22.54	1.0	20	0	113	70-145	0			
1,2,3-Trichloropropane	17.08	1.0	20	0	85.4	75-125	0			
1,2,4-Trichlorobenzene	18.45	1.0	20	0	92.2	70-135	0			
1,2,4-Trimethylbenzene	19.22	1.0	20	0	96.1	75-130	0			
1,2-Dibromo-3-chloropropane	15.69	1.0	20	0	78.4	60-130	0			
1,2-Dibromoethane	20.93	1.0	20	0	105	67-155	0			
1,2-Dichlorobenzene	18.57	1.0	20	0	92.8	70-130	0			
1,2-Dichloroethane	17.71	1.0	20	0	88.6	78-125	0			
1,2-Dichloropropane	18.52	1.0	20	0	92.6	75-125	0			
1,3,5-Trimethylbenzene	18.23	1.0	20	0	91.2	75-130	0			
1,3-Dichlorobenzene	19.33	1.0	20	0	96.6	75-130	0			
1,4-Dichlorobenzene	18.65	1.0	20	0	93.2	75-130	0			
2-Butanone	20.17	5.0	20	0	101	55-150	0			
2-Hexanone	19.32	5.0	20	0	96.6	60-135	0			
4-Methyl-2-pentanone	27.65	1.0	20	0	138	77-178	0			
Acetone	21.46	10	20	0	107	60-160	0			
Acrylonitrile	19.58	1.0	20	0	97.9	60-140	0			
Benzene	19.84	1.0	20	0	99.2	70-130	0			
Bromochloromethane	18.12	1.0	20	0	90.6	72-141	0			
Bromodichloromethane	17.57	1.0	20	0	87.8	75-125	0			
Bromoform	16.37	1.0	20	0	81.8	60-125	0			
Bromomethane	25.19	1.0	20	0	126	30-185	0			B
Carbon disulfide	23.16	1.0	20	0	116	60-165	0			
Carbon tetrachloride	20.79	1.0	20	0	104	65-140	0			
Chlorobenzene	18.43	1.0	20	0	92.2	80-120	0			
Chloroethane	17.36	1.0	20	0	86.8	31-172	0			
Chloroform	18.67	1.0	20	0	93.4	66-135	0			
Chloromethane	19.26	1.0	20	0	96.3	46-148	0			
cis-1,2-Dichloroethene	18.69	1.0	20	0	93.4	75-134	0			
cis-1,3-Dichloropropene	18.34	1.0	20	0	91.7	70-130	0			
Dibromochloromethane	16.28	1.0	20	0	81.4	60-115	0			
Dibromomethane	19.49	1.0	20	0	97.4	79-126	0			
Dichlorodifluoromethane	26.69	1.0	20	0	133	20-120	0			S
Diethyl ether	19.83	1.0	20	0	99.2	70-130	0			
Ethylbenzene	19.15	1.0	20	0	95.8	76-123	0			
Hexachloroethane	17.69	1.0	20	0	88.4	50-124	0			
Isopropylbenzene	19.48	1.0	20	0	97.4	80-127	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R283457b** Instrument ID **VMS6** Method: **SW8260C**

m,p-Xylene	38.57	2.0	40	0	96.4	75-130	0
Methyl iodide	15.18	5.0	20	0	75.9	60-160	0
Methyl tert-butyl ether	25.37	1.0	20	0	127	68-129	0
Methylene chloride	21.17	5.0	20	0	106	72-125	0
Naphthalene	18.64	5.0	20	0	93.2	55-160	0
n-Propylbenzene	18.28	1.0	20	0	91.4	76-116	0
o-Xylene	19.52	1.0	20	0	97.6	76-127	0
Styrene	19.76	1.0	20	0	98.8	83-137	0
Tetrachloroethene	21.09	1.0	20	0	105	68-166	0
Toluene	19.41	1.0	20	0	97	76-125	0
trans-1,2-Dichloroethene	20.25	1.0	20	0	101	80-140	0
trans-1,3-Dichloropropene	16.99	1.0	20	0	85	56-132	0
trans-1,4-Dichloro-2-butene	13.42	2.0	20	0	67.1	46-118	0
Trichloroethene	19.3	1.0	20	0	96.5	77-125	0
Trichlorofluoromethane	17.94	1.0	20	0	89.7	60-140	0
Vinyl chloride	19.99	1.0	20	0	100	50-136	0
Xylenes, Total	58.09	3.0	60	0	96.8	76-127	0
Surr: 1,2-Dichloroethane-d4	*19.87*	0	*20*	0	*99.4*	*75-120*	0
Surr: 4-Bromofluorobenzene	*20.65*	0	*20*	0	*103*	*80-110*	0
Surr: Dibromofluoromethane	*21*	0	*20*	0	*105*	*85-115*	0
Surr: Toluene-d8	*20.18*	0	*20*	0	*101*	*85-110*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021558
Project: Sediment Project 01-5303-3-0002

QC BATCH REPORT

Batch ID: **R283457b** Instrument ID **VMS6** Method: **SW8260C**

MS Sample ID: **20021558-02A MS** Units: **µg/L** Analysis Date: **2/27/2020 11:24 AM**

Client ID: **TMW-13** Run ID: **VMS6_200226B** SeqNo: **6274129** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	16.61	1.0	20	0	83	73-114	0			
1,1,1-Trichloroethane	21.26	1.0	20	0	106	75-130	0			
1,1,2,2-Tetrachloroethane	20.37	1.0	20	0	102	75-130	0			
1,1,2-Trichloroethane	20.35	1.0	20	0	102	75-125	0			
1,1-Dichloroethane	22.03	1.0	20	0	110	68-142	0			
1,1-Dichloroethene	26.69	1.0	20	0	133	70-145	0			
1,2,3-Trichloropropane	18.45	1.0	20	0	92.2	75-125	0			
1,2,4-Trichlorobenzene	18.17	1.0	20	0	90.8	70-135	0			
1,2,4-Trimethylbenzene	20.7	1.0	20	0	104	75-130	0			
1,2-Dibromo-3-chloropropane	16.06	1.0	20	0	80.3	60-130	0			
1,2-Dibromoethane	22.2	1.0	20	0	111	67-155	0			
1,2-Dichlorobenzene	19.26	1.0	20	0	96.3	70-130	0			
1,2-Dichloroethane	19.98	1.0	20	0	99.9	78-125	0			
1,2-Dichloropropane	20.03	1.0	20	0	100	75-125	0			
1,3,5-Trimethylbenzene	19.43	1.0	20	0	97.2	75-130	0			
1,3-Dichlorobenzene	19.76	1.0	20	0	98.8	75-130	0			
1,4-Dichlorobenzene	19.17	1.0	20	0	95.8	75-130	0			
2-Butanone	27.03	5.0	20	0	135	55-150	0			
2-Hexanone	23	5.0	20	0	115	60-135	0			
4-Methyl-2-pentanone	31.4	1.0	20	0	157	77-178	0			
Acetone	30.28	10	20	4.86	127	60-160	0			
Acrylonitrile	21.66	1.0	20	0	108	60-140	0			
Benzene	21.6	1.0	20	0	108	70-130	0			
Bromochloromethane	21.28	1.0	20	0	106	72-141	0			
Bromodichloromethane	18.14	1.0	20	0	90.7	75-125	0			
Bromoform	15.18	1.0	20	0	75.9	60-125	0			
Bromomethane	13.34	1.0	20	0	66.7	30-185	0			B
Carbon disulfide	24.05	1.0	20	0	120	60-165	0			
Carbon tetrachloride	21.68	1.0	20	0	108	65-140	0			
Chlorobenzene	19.56	1.0	20	0	97.8	80-120	0			
Chloroethane	21.54	1.0	20	0	108	31-172	0			
Chloroform	20.78	1.0	20	0	104	66-135	0			
Chloromethane	19.97	1.0	20	0	99.8	46-148	0			
cis-1,2-Dichloroethene	20.23	1.0	20	0	101	75-134	0			
cis-1,3-Dichloropropene	17.36	1.0	20	0	86.8	70-130	0			
Dibromochloromethane	15.48	1.0	20	0	77.4	60-115	0			
Dibromomethane	19.39	1.0	20	0	97	79-126	0			
Dichlorodifluoromethane	33.93	1.0	20	0	170	20-120	0			S
Diethyl ether	21.72	1.0	20	0	109	70-130	0			
Ethylbenzene	20.64	1.0	20	0	103	76-123	0			
Hexachloroethane	18.46	1.0	20	0	92.3	50-124	0			
Isopropylbenzene	21.29	1.0	20	0	106	80-127	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R283457b** Instrument ID **VMS6** Method: **SW8260C**

m,p-Xylene	41.76	2.0	40	0	104	75-130	0	
Methyl iodide	16.32	5.0	20	0	81.6	60-160	0	
Methyl tert-butyl ether	26.96	1.0	20	0	135	68-129	0	S
Methylene chloride	21.91	5.0	20	0	110	72-125	0	
Naphthalene	19.15	5.0	20	0	95.8	55-160	0	
n-Propylbenzene	19.56	1.0	20	0	97.8	76-116	0	
o-Xylene	20.84	1.0	20	0	104	76-127	0	
Styrene	20.95	1.0	20	0	105	83-137	0	
Tetrachloroethene	22.85	1.0	20	0	114	68-166	0	
Toluene	20.8	1.0	20	0	104	76-125	0	
trans-1,2-Dichloroethene	22.45	1.0	20	0	112	80-140	0	
trans-1,3-Dichloropropene	15.05	1.0	20	0	75.2	56-132	0	
trans-1,4-Dichloro-2-butene	13.85	2.0	20	0	69.2	46-118	0	
Trichloroethene	21.12	1.0	20	0	106	77-125	0	
Trichlorofluoromethane	21.44	1.0	20	0	107	60-140	0	
Vinyl chloride	24.25	1.0	20	0	121	50-136	0	
Xylenes, Total	62.6	3.0	60	0	104	76-127	0	
Surr: 1,2-Dichloroethane-d4	*20.11*	0	*20*	0	*101*	*75-120*	0	
Surr: 4-Bromofluorobenzene	*20.37*	0	*20*	0	*102*	*80-110*	0	
Surr: Dibromofluoromethane	*19.97*	0	*20*	0	*99.8*	*85-115*	0	
Surr: Toluene-d8	*19.17*	0	*20*	0	*95.8*	*85-110*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20021558
Project: Sediment Project 01-5303-3-0002

QC BATCH REPORT

Batch ID: **R283457b** Instrument ID **VMS6** Method: **SW8260C**

DUP Sample ID: **20021558-01A DUP** Units: **µg/L** Analysis Date: **2/27/2020 10:59 AM**

Client ID: **TMW-12** Run ID: **VMS6_200226B** SeqNo: **6274128** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	1.0	0	0	0		0	0	30	
1,1,1-Trichloroethane	ND	1.0	0	0	0		0	0	30	
1,1,2,2-Tetrachloroethane	ND	1.0	0	0	0		0	0	30	
1,1,2-Trichloroethane	ND	1.0	0	0	0		0	0	30	
1,1,2-Trichlorotrifluoroethane	ND	1.0	0	0	0		0	0	30	
1,1-Dichloroethane	1	1.0	0	0	0		0.93	7.25	30	
1,1-Dichloroethene	ND	1.0	0	0	0		0	0	30	
1,2,3-Trichloropropane	ND	1.0	0	0	0		0	0	30	
1,2,4-Trichlorobenzene	ND	1.0	0	0	0		0	0	30	
1,2,4-Trimethylbenzene	ND	1.0	0	0	0		0	0	30	
1,2-Dibromo-3-chloropropane	ND	1.0	0	0	0		0	0	30	
1,2-Dibromoethane	ND	1.0	0	0	0		0	0	30	
1,2-Dichlorobenzene	ND	1.0	0	0	0		0	0	30	
1,2-Dichloroethane	ND	1.0	0	0	0		0	0	30	
1,2-Dichloropropane	ND	1.0	0	0	0		0	0	30	
1,3,5-Trimethylbenzene	ND	1.0	0	0	0		0	0	30	
1,3-Dichlorobenzene	ND	1.0	0	0	0		0	0	30	
1,4-Dichlorobenzene	ND	1.0	0	0	0		0	0	30	
2-Butanone	2.73	5.0	0	0	0		0	0	30	J
2-Hexanone	ND	5.0	0	0	0		0	0	30	
2-Methylnaphthalene	ND	5.0	0	0	0		0	0	30	
4-Methyl-2-pentanone	ND	1.0	0	0	0		0	0	30	
Acetone	8.56	10	0	0	0		7.18	0	30	J
Acrylonitrile	ND	1.0	0	0	0		0	0	30	
Benzene	ND	1.0	0	0	0		0	0	30	
Bromochloromethane	ND	1.0	0	0	0		0	0	30	
Bromodichloromethane	ND	1.0	0	0	0		0	0	30	
Bromoform	ND	1.0	0	0	0		0	0	30	
Bromomethane	ND	1.0	0	0	0		0	0	30	
Carbon disulfide	ND	1.0	0	0	0		0	0	30	
Carbon tetrachloride	ND	1.0	0	0	0		0	0	30	
Chlorobenzene	ND	1.0	0	0	0		0	0	30	
Chloroethane	ND	1.0	0	0	0		0	0	30	
Chloroform	ND	1.0	0	0	0		0	0	30	
Chloromethane	ND	1.0	0	0	0		0	0	30	
cis-1,2-Dichloroethene	ND	1.0	0	0	0		0	0	30	
cis-1,3-Dichloropropene	ND	1.0	0	0	0		0	0	30	
Dibromochloromethane	ND	1.0	0	0	0		0	0	30	
Dibromomethane	ND	1.0	0	0	0		0	0	30	
Dichlorodifluoromethane	ND	1.0	0	0	0		0	0	30	
Diethyl ether	ND	1.0	0	0	0		0	0	30	
Ethylbenzene	ND	1.0	0	0	0		0	0	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R283457b** Instrument ID **VMS6** Method: **SW8260C**

Hexachloroethane	ND	1.0	0	0	0		0	0	30
Isopropylbenzene	ND	1.0	0	0	0		0	0	30
m,p-Xylene	ND	2.0	0	0	0		0	0	30
Methyl iodide	ND	5.0	0	0	0		0	0	30
Methyl tert-butyl ether	ND	1.0	0	0	0		0	0	30
Methylene chloride	ND	5.0	0	0	0		0	0	30
Naphthalene	ND	5.0	0	0	0		0	0	30
n-Propylbenzene	ND	1.0	0	0	0		0	0	30
o-Xylene	ND	1.0	0	0	0		0	0	30
Styrene	ND	1.0	0	0	0		0	0	30
Tetrachloroethene	ND	1.0	0	0	0		0	0	30
Toluene	ND	1.0	0	0	0		0	0	30
trans-1,2-Dichloroethene	ND	1.0	0	0	0		0	0	30
trans-1,3-Dichloropropene	ND	1.0	0	0	0		0	0	30
trans-1,4-Dichloro-2-butene	ND	2.0	0	0	0		0	0	30
Trichloroethene	ND	1.0	0	0	0		0	0	30
Trichlorofluoromethane	ND	1.0	0	0	0		0	0	30
Vinyl acetate	ND	5.0	0	0	0		0	0	30
Vinyl chloride	ND	1.0	0	0	0		0	0	30
Xylenes, Total	ND	3.0	0	0	0		0	0	30
Surr: 1,2-Dichloroethane-d4	*19.89*	0	*20*	0	*99.4*	*75-120*	19.76	*0.656*	*30*
Surr: 4-Bromofluorobenzene	*19.86*	0	*20*	0	*99.3*	*80-110*	19.84	*0.101*	*30*
Surr: Dibromofluoromethane	*18.55*	0	*20*	0	*92.8*	*85-115*	19.51	*5.04*	*30*
Surr: Toluene-d8	*19.26*	0	*20*	0	*96.3*	*85-110*	19.58	*1.65*	*30*

The following samples were analyzed in this batch:

20021558-01A	20021558-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Chain of Custody Form

Page 1 of 1

☑ ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

ALS Project Manager:	AL	ALS Work Order #:	20021558

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name		A	VOCs
Work Order		Project Number	01-5303-3-0002	B	PNAs
Company Name	PM Environmental	Bill To Company	PM Environmental	C	PCBs
Send Report To	Adam Patton	Invoice Attn.	Adam Patton, Accounts Payable	D	MI-10 Metals
Address	4080 W. 11 Mile	Address		E	Nickel, Uranium, Thorium
				F	
City/State/Zip	Berkley/MI/48072	City/State/Zip		G	
Phone	517-325-9869	Phone		H	
Fax		Fax		I	
e-Mail Address	Patton@pmenv.com			J	

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	TMW-12	2/20/20	11:40	W	1,2	6	X	X	X	X	X						
2	TMW-13	2/20/20	13:00	W	1,2	6	X	X	X	X	X						

Sampler(s): Please Print & Sign

Shipment Method:

Turnaround Time: (Business Days) ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☐ Other _____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
[signature]	2/24/20	1330	[signature]	2/24/20	1330	Rec'd 2/25/20 0800 [signature]
Relinquished by:	Date:	Time:	Received by (Laboratory):	Date:	Time:	
[signature]	2/24/20	1600	[signature]	2/24/20	1600	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):			
DFS	2/25/20	0830	AL			

ALS Cooler ID	Cooler Temp	QC Package: (Check Box Below)	
		☐ Level II: Standard QC	☐ Level III: Raw Data
SR2	3.6°C	☐ TRRP LRC	☐ TRRP Level IV
pH 19		☐ Level IV: SW846 Methods/CLP like	
		☐ Other: _____	

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.

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ALS Group, USA

Sample Receipt Checklist

Client Name: **PMENV-BERKLEY** Date/Time Received: **25-Feb-20 08:00**

Work Order: **20021558** Received by: **DS**

Checklist completed by Diane Shaw (eSignature) 25-Feb-20 (Date) Reviewed by: Alex J. Csaszar (eSignature) 25-Feb-20 (Date)

Matrices: Water
Carrier name: Courier

	Yes	No	Not Present
Shipping container/cooler in good condition?	☑	☐	☐
Custody seals intact on shipping container/cooler?	☐	☐	☑
Custody seals intact on sample bottles?	☐	☐	☑
Chain of custody present?	☑	☐	
Chain of custody signed when relinquished and received?	☑	☐	
Chain of custody agrees with sample labels?	☑	☐	
Samples in proper container/bottle?	☑	☐	
Sample containers intact?	☑	☐	
Sufficient sample volume for indicated test?	☑	☐	
All samples received within holding time?	☑	☐	
Container/Temp Blank temperature in compliance?	☑	☐	
Sample(s) received on ice?	☑	☐	

Temperature(s)/Thermometer(s): 3.6/3.6 c SR2

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage: 2/25/2020 8:43:34 AM

	Yes	No		
Water - VOA vials have zero headspace?	☑	☐	No VOA vials submitted	☐
Water - pH acceptable upon receipt?	☑	☐	N/A	☐
pH adjusted?	☐	☑	N/A	☐

pH adjusted by: -

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

28-Feb-2020

Adam Patton
PM Environmental
4080 West 11 Mile Road
Berkley, MI 48072

Re: **Sediment Project 01-5303-3-0001** Work Order: **20020850**

Dear Adam,

ALS Environmental received 46 samples on 13-Feb-2020 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 209.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

Electronically approved by: Alex J. Csaszar

Alex J. Csaszar
Project Manager

Report of Laboratory Analysis

Certificate No: MN 026-999-449

ALS Group, USA

Date: 28-Feb-20

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: **20020850**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
20020850-01	SB-12 4-5'	Soil		2/10/2020 13:15	2/13/2020 08:00	☐
20020850-02	SB-12 9-10'	Soil		2/10/2020 13:30	2/13/2020 08:00	☐
20020850-03	SB-13 3.5-4.5'	Soil		2/10/2020 14:45	2/13/2020 08:00	☐
20020850-04	SB-13 4.5-5.5'	Soil		2/10/2020 15:05	2/13/2020 08:00	☐
20020850-05	SB-14 1.5-2.5'	Soil		2/10/2020 17:20	2/13/2020 08:00	☐
20020850-06	A1	Water		2/10/2020 14:00	2/13/2020 08:00	☐
20020850-07	A2	Water		2/10/2020 14:30	2/13/2020 08:00	☐
20020850-08	P1	Water		2/10/2020 17:40	2/13/2020 08:00	☐
20020850-09	S-9 0-5'	Soil		2/11/2020 16:00	2/13/2020 08:00	☐
20020850-10	S-10 0-5'	Soil		2/11/2020 14:45	2/13/2020 08:00	☐
20020850-11	S-1 4-5'	Soil		2/12/2020 11:40	2/13/2020 08:00	☐
20020850-12	S-1 5-10'	Soil		2/12/2020 11:45	2/13/2020 08:00	☐
20020850-13	S-8 2-3'	Soil		2/12/2020 13:00	2/13/2020 08:00	☐
20020850-14	S-8 3-8'	Soil		2/12/2020 13:05	2/13/2020 08:00	☐
20020850-15	A-3	Soil		2/12/2020 12:00	2/13/2020 08:00	☐
20020850-16	S-2 5-7'	Soil		2/12/2020 14:00	2/13/2020 08:00	☐
20020850-17	S-2 7-12'	Soil		2/12/2020 14:05	2/13/2020 08:00	☐
20020850-18	S-5 2-3'	Soil		2/12/2020 15:00	2/13/2020 08:00	☐
20020850-19	S-5 14-15'	Soil		2/12/2020 15:25	2/13/2020 08:00	☐
20020850-20	S-5 17-22'	Soil		2/12/2020 15:30	2/13/2020 08:00	☐
20020850-21	S-13 0-5'	Soil		2/11/2020 10:45	2/13/2020 08:00	☐
20020850-22	S-12 0-5'	Soil		2/11/2020 12:10	2/13/2020 08:00	☐
20020850-23	S-11 0-5'	Soil		2/11/2020 13:50	2/13/2020 08:00	☐
20020850-24	S-11 5-10'	Soil		2/11/2020 14:00	2/13/2020 08:00	☐
20020850-27	A-4	Water		2/11/2020 12:00	2/13/2020 08:00	☐
20020850-28	A-5	Water		2/12/2020 12:30	2/13/2020 08:00	☐
20020850-29	S-9 0-5' TCLP	Tclp Extract		2/11/2020 16:00	2/13/2020 08:00	☐
20020850-30	S-10 4-5' TCLP	Tclp Extract		2/11/2020 14:45	2/13/2020 08:00	☐
20020850-31	S-1 0-5' TCLP	Tclp Extract		2/12/2020 11:40	2/13/2020 08:00	☐
20020850-32	S-1 5-10' TCLP	Tclp Extract		2/12/2020 11:45	2/13/2020 08:00	☐
20020850-33	S-8 2-3' TCLP	Tclp Extract		2/12/2020 13:00	2/13/2020 08:00	☐
20020850-34	S-8 3-8' TCLP	Tclp Extract		2/12/2020 13:05	2/13/2020 08:00	☐
20020850-35	A-3 TCLP	Tclp Extract		2/12/2020 12:00	2/13/2020 08:00	☐
20020850-36	S-2 5-7' TCLP	Tclp Extract		2/12/2020 14:00	2/13/2020 08:00	☐
20020850-37	S-2 7-12' TCLP	Tclp Extract		2/12/2020 14:05	2/13/2020 08:00	☐
20020850-38	S-5 2-3' TCLP	Tclp Extract		2/12/2020 15:00	2/13/2020 08:00	☐
20020850-39	S-5 14-15' TCLP	Tclp Extract		2/12/2020 15:25	2/13/2020 08:00	☐
20020850-40	S-5 17-22' TCLP	Tclp Extract		2/12/2020 15:30	2/13/2020 08:00	☐
20020850-41	S-13 0-5' TCLP	Tclp Extract		2/11/2020 10:45	2/13/2020 08:00	☐

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: **20020850**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
20020850-42	S-12 0-5' TCLP	Tclp Extract		2/11/2020 12:10	2/13/2020 08:00	☐
20020850-43	S-11 0-5' TCLP	Tclp Extract		2/11/2020 13:50	2/13/2020 08:00	☐
20020850-44	S-11 5-10' TCLP	Tclp Extract		2/11/2020 14:00	2/13/2020 08:00	☐
20020850-47	Trip Blank #1	Water		2/11/2020	2/13/2020 08:00	☐
20020850-48	Trip Blank #2	Water		2/11/2020	2/13/2020 08:00	☐
20020850-49	SB-13 3.5-4.5' TCLP	Tclp Extract		2/10/2020 14:45	2/13/2020 08:00	☐
20020850-50	SB-13 4.5-5.5' TCLP	Tclp Extract		2/10/2020 15:05	2/13/2020 08:00	☐

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20020850

Case Narrative

Samples for the above noted Work Order were received on 02/13/2020. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting. A copy of the laboratory's scope of accreditation is available upon request.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:

Batch 151891, Method VOC_8260_S, Sample 20020850-09A: The reporting limit is elevated due to dilution needed to eliminate matrix-related interference.

Batch 151891, Method VOC_8260_S, Samples 20020850-11A MS and MSD: The MS and MSD recoveries were above the upper control limits for Acetone and Dichlorodifluoromethane. The reported results in the parent sample were non-detect, therefore no qualification is necessary.

Batch 151891, Method VOC_8260_S, Samples 20020850-11A MS and MSD: The MS and MSD recoveries were above the upper control limits for multiple analytes (See QC Report). The reported results in the parent sample were non-detect, therefore no qualification is necessary.

Batch 151891, Method VOC_8260_S, Samples 20020850-11A MS and MSD: The MS and MSD recoveries were below the lower control limits for Chloroethane. The reported result in the parent sample may be biased low for this analyte.

Batch 151891, Method VOC_8260_S, Sample 20020850-11A MSD: The MSD recovery was outside of the control limits for 2-Butanone. However, the MS recovery and the RPD between the MS and MSD was in control. No qualification is required for this analyte.

Batch R282900, Method VOC_8260_W, Sample VBLKW1-200219: The concentration in the

Method Blank was greater than the quantitation limits for Bromomethane and Chloromethane. All samples in the batch were non-detect; therefore, no qualification is needed for these analytes.

Batch R282900, Method VOC_8260_W, Sample VLCSW1-200219: The LCS recoveries were above the upper control limits for Dichlorodifluoromethane and Methyl iodide. All the sample results in the batch were non-detect. No qualification is necessary for these analytes.

Extractable Organics:

Batch 152021, Method PCBLVI_8082_S, Sample 20020850-17B: One or more surrogate recoveries were below the lower control limits due to matrix iterference. The sample results may be biased low.

Batch 152195, Method PNLVI_8270_S, Sample 20020850-05B: Could not resolve split peak so the sample result should be considered estimated for the following analyte(s): Benzo(a)anthracene; Chrysene.

Batch 152195, Method PNLVI_8270_S, Sample 20020850-24B MS: The MS recoveries were above the upper control limits for Fluoranthene and Phenanthrene. The reported results in the parent sample may be biased high for these analytes.

Batch 152195, Method PNLVI_8270_S, Sample 20020850-24B MSD: The RPDs between the MS and MSD were outside the control limits for several analytes (See QC Rpeort). The reported results in the parent sample should be considered estimated for these analytes.

Metals:

Batch 152054, Method ICP_6020_S, Sample 20020850-19B MS: The MS recovery was above the upper control limits for Cadmium. The corresponding result in the parent sample may be biased high for this analyte.

Batch 152054, Method ICP_6020_S, Samples 20020850-19B MS and MSD: The MS and MSD recoveries were below the lower control limits for Arsenic and Chromium. The reported results in the parent sample may be biased low for these analytes.

Batch 152054, Method ICP_6020_S, Samples 20020850-19B MS and MSD: The MS and MSD recoveries were outside of the control limits for several analytes (See QC Report); however, the results in the parent sample were greater than 4x the spike amount. No qualification is required for these analytes.

Batch 152054, Method ICP_6020_S, Sample 20020850-19B MSD: The MSD recovery was

outside of the control limits for Nickel. However, the MS recovery and the RPD between the MS and MSD was in control. No qualification is required for this analyte.

Batch 152054, Method ICP_6020_S, Sample 20020850-19BMSD: The RPD between the MS and MSD was outside the control limits for Cadmium. The reported result in the parent sample should be considered estimated for this analyte.

Batch 152057, Method ICP_6020_S, Samples 20020850-20B, -21B, -22B, -23B and -24B: The concentration in the Method Blank was greater than the quantitation limits for several analytes (See QC Report). The sample results were greater than 10x the concentration in the Method Blank; therefore, no qualification is necessary for these analytes.

Batch 152057, Method ICP_6020_S, Samples 20020850-24B MS and MSD: The MS and MSD recoveries were outside of the control limits for several analytes (See QCReport); however, the results in the parent sample were greater than 4x the spike amount. No qualification is required for these analytes.

Batch 152057, Method ICP_6020_S, Sample 20020850-24B MSD: The MSD recovery was outside of the control limits for Chromium. However, the MS recovery and the RPD between the MS and MSD was in control. No qualification is required for this analyte.

Batch 152510, Method ICP_6020_W, Sample MBLK-152510: The concentration in the Method Blank was greater than the quantitation limits for Chromium. Positive results in the batch may be biased high for this analyte.

Batch 152510, Method TCICP_6020_S, Sample 20020850-49A: The concentration in the Method Blank was greater than the quantitation limits for Chromium. The sample result was greater than 10x the concentration in the Method Blank; therefore, no qualification is necessary for this analyte.

Wet Chemistry:

Batch 151885, Method PH_9045_S, Sample 20020850-19B: Possible bias due to sodium error at pH > 10. A low sodium electrode is not used in the measurement process.

Batch 151899, Method PASC_365.1_S, Samples 20020850-19B MS and MSD: The MS and MSD recoverie were outside of the control limits for Phosphorus; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte.

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
% of sample	Percent of Sample
°C	Degrees Celcius
µg/Kg-dry	Micrograms per Kilogram Dry Weight
µg/L	Micrograms per Liter
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
s.u.	Standard Units

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: SB-12 4-5' **Lab ID:** 20020850-01
Collection Date: 2/10/2020 01:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/14/20 12:27		Analyst: **RM**
Aroclor 1016	ND		76	µg/Kg-dry	1	2/16/2020 06:06 PM
Aroclor 1221	ND		76	µg/Kg-dry	1	2/16/2020 06:06 PM
Aroclor 1232	ND		76	µg/Kg-dry	1	2/16/2020 06:06 PM
Aroclor 1242	ND		76	µg/Kg-dry	1	2/16/2020 06:06 PM
Aroclor 1248	ND		76	µg/Kg-dry	1	2/16/2020 06:06 PM
Aroclor 1254	ND		76	µg/Kg-dry	1	2/16/2020 06:06 PM
Aroclor 1260	ND		76	µg/Kg-dry	1	2/16/2020 06:06 PM
Aroclor 1262	ND		76	µg/Kg-dry	1	2/16/2020 06:06 PM
Aroclor 1268	ND		76	µg/Kg-dry	1	2/16/2020 06:06 PM
Surr: Decachlorobiphenyl	*57.2*		*40-140*	*%REC*	1	2/16/2020 06:06 PM
Surr: Tetrachloro-m-xylene	*64.5*		*45-124*	*%REC*	1	2/16/2020 06:06 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/18/20 13:11		Analyst: **RSH**
Mercury	**0.024**		**0.022**	**mg/Kg-dry**	1	2/18/2020 05:42 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/17/20 17:56		Analyst: **DSC**
Arsenic	**3.8**		**0.46**	**mg/Kg-dry**	1	2/18/2020 07:40 PM
Barium	**39**		**0.46**	**mg/Kg-dry**	1	2/18/2020 07:40 PM
Cadmium	**0.43**		**0.18**	**mg/Kg-dry**	1	2/18/2020 07:40 PM
Chromium	**10**		**0.46**	**mg/Kg-dry**	1	2/18/2020 07:40 PM
Copper	**71**		**4.6**	**mg/Kg-dry**	10	2/19/2020 03:26 PM
Lead	**10**		**0.46**	**mg/Kg-dry**	1	2/18/2020 07:40 PM
Nickel	**12**		**0.46**	**mg/Kg-dry**	1	2/18/2020 07:40 PM
Selenium	ND		0.46	mg/Kg-dry	1	2/18/2020 07:40 PM
Silver	ND		0.46	mg/Kg-dry	1	2/18/2020 07:40 PM
Thorium	**2.7**		**0.46**	**mg/Kg-dry**	1	2/18/2020 07:40 PM
Uranium	**0.48**		**0.46**	**mg/Kg-dry**	1	2/18/2020 07:40 PM
Zinc	**120**		**9.2**	**mg/Kg-dry**	10	2/19/2020 03:26 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/13/20 12:25		Analyst: **EEW**
1-Methylnaphthalene	**220**		**4.9**	**µg/Kg-dry**	1	2/18/2020 10:12 PM
2-Chloronaphthalene	ND		4.9	µg/Kg-dry	1	2/18/2020 10:12 PM
2-Methylnaphthalene	**330**		**4.9**	**µg/Kg-dry**	1	2/18/2020 10:12 PM
Acenaphthene	**1,000**		**4.9**	**µg/Kg-dry**	1	2/18/2020 10:12 PM
Acenaphthylene	**17**		**4.9**	**µg/Kg-dry**	1	2/18/2020 10:12 PM
Anthracene	**1,300**		**4.9**	**µg/Kg-dry**	1	2/18/2020 10:12 PM
Benzo(a)anthracene	**1,500**		**4.9**	**µg/Kg-dry**	1	2/18/2020 10:12 PM
Benzo(a)pyrene	**980**		**4.9**	**µg/Kg-dry**	1	2/18/2020 10:12 PM
Benzo(b)fluoranthene	**1,300**		**4.9**	**µg/Kg-dry**	1	2/18/2020 10:12 PM
Benzo(g,h,i)perylene	**410**		**4.9**	**µg/Kg-dry**	1	2/18/2020 10:12 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: SB-12 4-5' **Lab ID:** 20020850-01
Collection Date: 2/10/2020 01:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**490**		**4.9**	**µg/Kg-dry**	1	2/18/2020 10:12 PM
Chrysene	**1,200**		**4.9**	**µg/Kg-dry**	1	2/18/2020 10:12 PM
Dibenzo(a,h)anthracene	**85**		**4.9**	**µg/Kg-dry**	1	2/18/2020 10:12 PM
Fluoranthene	**4,800**		**4.9**	**µg/Kg-dry**	1	2/18/2020 10:12 PM
Fluorene	**910**		**4.9**	**µg/Kg-dry**	1	2/18/2020 10:12 PM
Indeno(1,2,3-cd)pyrene	**630**		**4.9**	**µg/Kg-dry**	1	2/18/2020 10:12 PM
Naphthalene	**1,400**		**4.9**	**µg/Kg-dry**	1	2/18/2020 10:12 PM
Phenanthrene	**5,600**		**4.9**	**µg/Kg-dry**	1	2/18/2020 10:12 PM
Pyrene	**2,400**		**4.9**	**µg/Kg-dry**	1	2/18/2020 10:12 PM
Surr: 2-Fluorobiphenyl	*91.9*		*20-140*	*%REC*	1	2/18/2020 10:12 PM
Surr: 4-Terphenyl-d14	*57.1*		*22-172*	*%REC*	1	2/18/2020 10:12 PM
Surr: Nitrobenzene-d5	*87.6*		*28-140*	*%REC*	1	2/18/2020 10:12 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/13/20 11:51		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
1,1,1-Trichloroethane	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
1,1,2,2-Tetrachloroethane	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
1,1,2-Trichloroethane	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
1,1,2-Trichlorotrifluoroethane	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
1,1-Dichloroethane	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
1,1-Dichloroethene	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
1,2,3-Trichloropropane	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
1,2,4-Trichlorobenzene	ND		130	µg/Kg-dry	1	2/19/2020 12:55 PM
1,2,4-Trimethylbenzene	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
1,2-Dibromo-3-chloropropane	ND		130	µg/Kg-dry	1	2/19/2020 12:55 PM
1,2-Dibromoethane	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
1,2-Dichlorobenzene	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
1,2-Dichloroethane	ND		130	µg/Kg-dry	1	2/19/2020 12:55 PM
1,2-Dichloropropane	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
1,3,5-Trimethylbenzene	ND		130	µg/Kg-dry	1	2/19/2020 12:55 PM
1,3-Dichlorobenzene	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
1,4-Dichlorobenzene	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
2-Butanone	ND		270	µg/Kg-dry	1	2/19/2020 12:55 PM
2-Hexanone	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
2-Methylnaphthalene	**140**		**130**	**µg/Kg-dry**	1	2/19/2020 12:55 PM
4-Methyl-2-pentanone	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
Acetone	ND		130	µg/Kg-dry	1	2/19/2020 12:55 PM
Acrylonitrile	ND		130	µg/Kg-dry	1	2/19/2020 12:55 PM
Benzene	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
Bromochloromethane	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
Bromodichloromethane	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: SB-12 4-5' **Lab ID:** 20020850-01
Collection Date: 2/10/2020 01:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
Bromomethane	ND		130	µg/Kg-dry	1	2/19/2020 12:55 PM
Carbon disulfide	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
Carbon tetrachloride	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
Chlorobenzene	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
Chloroethane	ND		130	µg/Kg-dry	1	2/19/2020 12:55 PM
Chloroform	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
Chloromethane	ND		130	µg/Kg-dry	1	2/19/2020 12:55 PM
cis-1,2-Dichloroethene	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
cis-1,3-Dichloropropene	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
Dibromochloromethane	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
Dibromomethane	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
Dichlorodifluoromethane	ND		130	µg/Kg-dry	1	2/19/2020 12:55 PM
Diethyl ether	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
Ethylbenzene	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
Hexachloroethane	ND		130	µg/Kg-dry	1	2/19/2020 12:55 PM
Isopropylbenzene	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
m,p-Xylene	ND		80	µg/Kg-dry	1	2/19/2020 12:55 PM
Methyl iodide	ND		670	µg/Kg-dry	1	2/19/2020 12:55 PM
Methyl tert-butyl ether	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
Methylene chloride	ND		330	µg/Kg-dry	1	2/19/2020 12:55 PM
Naphthalene	**280**		**130**	**µg/Kg-dry**	1	2/19/2020 12:55 PM
n-Propylbenzene	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
o-Xylene	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
Styrene	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
Tetrachloroethene	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
Toluene	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
trans-1,2-Dichloroethene	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
trans-1,3-Dichloropropene	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
trans-1,4-Dichloro-2-butene	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
Trichloroethene	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
Trichlorofluoromethane	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
Vinyl acetate	ND		330	µg/Kg-dry	1	2/19/2020 12:55 PM
Vinyl chloride	ND		40	µg/Kg-dry	1	2/19/2020 12:55 PM
Xylenes, Total	ND		120	µg/Kg-dry	1	2/19/2020 12:55 PM
Surr: 1,2-Dichloroethane-d4	*102*		*70-130*	*%REC*	1	2/19/2020 12:55 PM
Surr: 4-Bromofluorobenzene	*94.7*		*70-130*	*%REC*	1	2/19/2020 12:55 PM
Surr: Dibromofluoromethane	*94.6*		*70-130*	*%REC*	1	2/19/2020 12:55 PM
Surr: Toluene-d8	*96.1*		*70-130*	*%REC*	1	2/19/2020 12:55 PM

MOISTURE **SW3550C** Analyst: **KTP**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client:	PM Environmental		
Project:	Sediment Project 01-5303-3-0001	**Work Order:**	20020850
Sample ID:	SB-12 4-5'	**Lab ID:**	20020850-01
Collection Date:	2/10/2020 01:15 PM	**Matrix:**	SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Moisture	**16**		**0.10**	**% of sample**	1	2/14/2020 10:18 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: SB-12 9-10'
Collection Date: 2/10/2020 01:30 PM

Work Order: 20020850
Lab ID: 20020850-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/14/20 12:27		Analyst: **RM**
Aroclor 1016	ND		380	µg/Kg-dry	1	2/16/2020 06:22 PM
Aroclor 1221	ND		380	µg/Kg-dry	1	2/16/2020 06:22 PM
Aroclor 1232	ND		380	µg/Kg-dry	1	2/16/2020 06:22 PM
Aroclor 1242	ND		380	µg/Kg-dry	1	2/16/2020 06:22 PM
Aroclor 1248	ND		380	µg/Kg-dry	1	2/16/2020 06:22 PM
Aroclor 1254	ND		380	µg/Kg-dry	1	2/16/2020 06:22 PM
Aroclor 1260	ND		380	µg/Kg-dry	1	2/16/2020 06:22 PM
Aroclor 1262	ND		380	µg/Kg-dry	1	2/16/2020 06:22 PM
Aroclor 1268	ND		380	µg/Kg-dry	1	2/16/2020 06:22 PM
Surr: Decachlorobiphenyl	*74.0*		*40-140*	*%REC*	1	2/16/2020 06:22 PM
Surr: Tetrachloro-m-xylene	*75.3*		*45-124*	*%REC*	1	2/16/2020 06:22 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/18/20 13:11		Analyst: **RSH**
Mercury	**1.1**		**0.11**	**mg/Kg-dry**	5	2/19/2020 11:22 AM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/17/20 17:56		Analyst: **DSC**
Arsenic	**7.4**		**0.46**	**mg/Kg-dry**	1	2/18/2020 07:45 PM
Barium	**41**		**0.46**	**mg/Kg-dry**	1	2/18/2020 07:45 PM
Cadmium	**6.4**		**0.19**	**mg/Kg-dry**	1	2/18/2020 07:45 PM
Chromium	**6.3**		**0.46**	**mg/Kg-dry**	1	2/18/2020 07:45 PM
Copper	**2,200**		**460**	**mg/Kg-dry**	1000	2/19/2020 03:27 PM
Lead	**89**		**0.46**	**mg/Kg-dry**	1	2/18/2020 07:45 PM
Nickel	**6.4**		**0.46**	**mg/Kg-dry**	1	2/18/2020 07:45 PM
Selenium	**0.87**		**0.46**	**mg/Kg-dry**	1	2/18/2020 07:45 PM
Silver	**1.4**		**0.46**	**mg/Kg-dry**	1	2/18/2020 07:45 PM
Thorium	**1.2**		**0.46**	**mg/Kg-dry**	1	2/18/2020 07:45 PM
Uranium	ND		0.46	mg/Kg-dry	1	2/18/2020 07:45 PM
Zinc	**3,100**		**930**	**mg/Kg-dry**	1000	2/19/2020 03:27 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/13/20 12:25		Analyst: **EEW**
1-Methylnaphthalene	**64**		**27**	**µg/Kg-dry**	1	2/16/2020 01:08 AM
2-Chloronaphthalene	ND		27	µg/Kg-dry	1	2/16/2020 01:08 AM
2-Methylnaphthalene	**58**		**27**	**µg/Kg-dry**	1	2/16/2020 01:08 AM
Acenaphthene	**730**		**27**	**µg/Kg-dry**	1	2/16/2020 01:08 AM
Acenaphthylene	ND		27	µg/Kg-dry	1	2/16/2020 01:08 AM
Anthracene	**1,000**		**27**	**µg/Kg-dry**	1	2/16/2020 01:08 AM
Benzo(a)anthracene	**1,200**		**27**	**µg/Kg-dry**	1	2/16/2020 01:08 AM
Benzo(a)pyrene	**750**		**27**	**µg/Kg-dry**	1	2/16/2020 01:08 AM
Benzo(b)fluoranthene	**750**		**27**	**µg/Kg-dry**	1	2/16/2020 01:08 AM
Benzo(g,h,i)perylene	**280**		**27**	**µg/Kg-dry**	1	2/16/2020 01:08 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20020850
Sample ID: SB-12 9-10'
Lab ID: 20020850-02
Collection Date: 2/10/2020 01:30 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**250**		**27**	**µg/Kg-dry**	1	2/16/2020 01:08 AM
Chrysene	**1,200**		**27**	**µg/Kg-dry**	1	2/16/2020 01:08 AM
Dibenzo(a,h)anthracene	**55**		**27**	**µg/Kg-dry**	1	2/16/2020 01:08 AM
Fluoranthene	**2,700**		**27**	**µg/Kg-dry**	1	2/16/2020 01:08 AM
Fluorene	**540**		**27**	**µg/Kg-dry**	1	2/16/2020 01:08 AM
Indeno(1,2,3-cd)pyrene	**300**		**27**	**µg/Kg-dry**	1	2/16/2020 01:08 AM
Naphthalene	ND		27	µg/Kg-dry	1	2/16/2020 01:08 AM
Phenanthrene	**3,600**		**27**	**µg/Kg-dry**	1	2/16/2020 01:08 AM
Pyrene	**3,000**		**27**	**µg/Kg-dry**	1	2/16/2020 01:08 AM
Surr: 2-Fluorobiphenyl	*105*		*20-140*	*%REC*	1	2/16/2020 01:08 AM
Surr: 4-Terphenyl-d14	*76.9*		*22-172*	*%REC*	1	2/16/2020 01:08 AM
Surr: Nitrobenzene-d5	*96.9*		*28-140*	*%REC*	1	2/16/2020 01:08 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/13/20 11:51		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
1,1,1-Trichloroethane	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
1,1,2,2-Tetrachloroethane	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
1,1,2-Trichloroethane	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
1,1,2-Trichlorotrifluoroethane	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
1,1-Dichloroethane	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
1,1-Dichloroethene	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
1,2,3-Trichloropropane	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
1,2,4-Trichlorobenzene	ND		150	µg/Kg-dry	1	2/19/2020 01:11 PM
1,2,4-Trimethylbenzene	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
1,2-Dibromo-3-chloropropane	ND		150	µg/Kg-dry	1	2/19/2020 01:11 PM
1,2-Dibromoethane	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
1,2-Dichlorobenzene	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
1,2-Dichloroethane	ND		150	µg/Kg-dry	1	2/19/2020 01:11 PM
1,2-Dichloropropane	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
1,3,5-Trimethylbenzene	ND		150	µg/Kg-dry	1	2/19/2020 01:11 PM
1,3-Dichlorobenzene	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
1,4-Dichlorobenzene	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
2-Butanone	ND		300	µg/Kg-dry	1	2/19/2020 01:11 PM
2-Hexanone	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
2-Methylnaphthalene	ND		150	µg/Kg-dry	1	2/19/2020 01:11 PM
4-Methyl-2-pentanone	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
Acetone	ND		150	µg/Kg-dry	1	2/19/2020 01:11 PM
Acrylonitrile	ND		150	µg/Kg-dry	1	2/19/2020 01:11 PM
Benzene	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
Bromochloromethane	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
Bromodichloromethane	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: SB-12 9-10'
Collection Date: 2/10/2020 01:30 PM

Work Order: 20020850
Lab ID: 20020850-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
Bromomethane	ND		150	µg/Kg-dry	1	2/19/2020 01:11 PM
Carbon disulfide	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
Carbon tetrachloride	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
Chlorobenzene	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
Chloroethane	ND		150	µg/Kg-dry	1	2/19/2020 01:11 PM
Chloroform	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
Chloromethane	ND		150	µg/Kg-dry	1	2/19/2020 01:11 PM
cis-1,2-Dichloroethene	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
cis-1,3-Dichloropropene	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
Dibromochloromethane	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
Dibromomethane	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
Dichlorodifluoromethane	ND		150	µg/Kg-dry	1	2/19/2020 01:11 PM
Diethyl ether	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
Ethylbenzene	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
Hexachloroethane	ND		150	µg/Kg-dry	1	2/19/2020 01:11 PM
Isopropylbenzene	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
m,p-Xylene	ND		91	µg/Kg-dry	1	2/19/2020 01:11 PM
Methyl iodide	ND		760	µg/Kg-dry	1	2/19/2020 01:11 PM
Methyl tert-butyl ether	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
Methylene chloride	ND		380	µg/Kg-dry	1	2/19/2020 01:11 PM
Naphthalene	ND		150	µg/Kg-dry	1	2/19/2020 01:11 PM
n-Propylbenzene	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
o-Xylene	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
Styrene	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
Tetrachloroethene	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
Toluene	**61**		**45**	**µg/Kg-dry**	1	2/19/2020 01:11 PM
trans-1,2-Dichloroethene	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
trans-1,3-Dichloropropene	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
trans-1,4-Dichloro-2-butene	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
Trichloroethene	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
Trichlorofluoromethane	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
Vinyl acetate	ND		380	µg/Kg-dry	1	2/19/2020 01:11 PM
Vinyl chloride	ND		45	µg/Kg-dry	1	2/19/2020 01:11 PM
Xylenes, Total	ND		140	µg/Kg-dry	1	2/19/2020 01:11 PM
Surr: 1,2-Dichloroethane-d4	*107*		*70-130*	*%REC*	1	2/19/2020 01:11 PM
Surr: 4-Bromofluorobenzene	*96.6*		*70-130*	*%REC*	1	2/19/2020 01:11 PM
Surr: Dibromofluoromethane	*94.4*		*70-130*	*%REC*	1	2/19/2020 01:11 PM
Surr: Toluene-d8	*99.0*		*70-130*	*%REC*	1	2/19/2020 01:11 PM

MOISTURE **SW3550C** Analyst: **KTP**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client:	PM Environmental		
Project:	Sediment Project 01-5303-3-0001	**Work Order:**	20020850
Sample ID:	SB-12 9-10'	**Lab ID:**	20020850-02
Collection Date:	2/10/2020 01:30 PM	**Matrix:**	SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Moisture	**24**		**0.10**	**% of sample**	1	2/17/2020 02:45 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: SB-13 3.5-4.5' **Lab ID:** 20020850-03
Collection Date: 2/10/2020 02:45 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/14/20 12:27		Analyst: **RM**
Aroclor 1016	ND		220	µg/Kg-dry	1	2/16/2020 06:37 PM
Aroclor 1221	ND		220	µg/Kg-dry	1	2/16/2020 06:37 PM
Aroclor 1232	ND		220	µg/Kg-dry	1	2/16/2020 06:37 PM
Aroclor 1242	ND		220	µg/Kg-dry	1	2/16/2020 06:37 PM
Aroclor 1248	ND		220	µg/Kg-dry	1	2/16/2020 06:37 PM
Aroclor 1254	**1,100**		**220**	**µg/Kg-dry**	1	2/16/2020 06:37 PM
Aroclor 1260	ND		220	µg/Kg-dry	1	2/16/2020 06:37 PM
Aroclor 1262	ND		220	µg/Kg-dry	1	2/16/2020 06:37 PM
Aroclor 1268	ND		220	µg/Kg-dry	1	2/16/2020 06:37 PM
Surr: Decachlorobiphenyl	*81.1*		*40-140*	*%REC*	1	2/16/2020 06:37 PM
Surr: Tetrachloro-m-xylene	*80.0*		*45-124*	*%REC*	1	2/16/2020 06:37 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/18/20 13:11		Analyst: **RSH**
Mercury	**0.085**		**0.020**	**mg/Kg-dry**	1	2/18/2020 05:48 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/17/20 17:56		Analyst: **DSC**
Arsenic	**14**		**0.46**	**mg/Kg-dry**	1	2/18/2020 07:46 PM
Barium	**160**		**0.46**	**mg/Kg-dry**	1	2/18/2020 07:46 PM
Cadmium	**0.89**		**0.18**	**mg/Kg-dry**	1	2/18/2020 07:46 PM
Chromium	**240**		**46**	**mg/Kg-dry**	100	2/19/2020 03:29 PM
Copper	**1,000**		**46**	**mg/Kg-dry**	100	2/19/2020 03:29 PM
Lead	**83**		**0.46**	**mg/Kg-dry**	1	2/18/2020 07:46 PM
Nickel	**55**		**0.46**	**mg/Kg-dry**	1	2/18/2020 07:46 PM
Selenium	**1.0**		**0.46**	**mg/Kg-dry**	1	2/18/2020 07:46 PM
Silver	ND		0.46	mg/Kg-dry	1	2/18/2020 07:46 PM
Thorium	**2.4**		**0.46**	**mg/Kg-dry**	1	2/18/2020 07:46 PM
Uranium	**4.5**		**0.46**	**mg/Kg-dry**	1	2/18/2020 07:46 PM
Zinc	**840**		**92**	**mg/Kg-dry**	100	2/19/2020 03:29 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/13/20 12:25		Analyst: **EEW**
1-Methylnaphthalene	ND		15	µg/Kg-dry	1	2/16/2020 01:23 AM
2-Chloronaphthalene	ND		15	µg/Kg-dry	1	2/16/2020 01:23 AM
2-Methylnaphthalene	ND		15	µg/Kg-dry	1	2/16/2020 01:23 AM
Acenaphthene	**55**		**15**	**µg/Kg-dry**	1	2/16/2020 01:23 AM
Acenaphthylene	ND		15	µg/Kg-dry	1	2/16/2020 01:23 AM
Anthracene	**110**		**15**	**µg/Kg-dry**	1	2/16/2020 01:23 AM
Benzo(a)anthracene	**260**		**15**	**µg/Kg-dry**	1	2/16/2020 01:23 AM
Benzo(a)pyrene	**220**		**15**	**µg/Kg-dry**	1	2/16/2020 01:23 AM
Benzo(b)fluoranthene	**380**		**15**	**µg/Kg-dry**	1	2/16/2020 01:23 AM
Benzo(g,h,i)perylene	**200**		**15**	**µg/Kg-dry**	1	2/16/2020 01:23 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: SB-13 3.5-4.5'
Collection Date: 2/10/2020 02:45 PM

Work Order: 20020850
Lab ID: 20020850-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**130**		**15**	**µg/Kg-dry**	1	2/16/2020 01:23 AM
Chrysene	**340**		**15**	**µg/Kg-dry**	1	2/16/2020 01:23 AM
Dibenzo(a,h)anthracene	**31**		**15**	**µg/Kg-dry**	1	2/16/2020 01:23 AM
Fluoranthene	**670**		**15**	**µg/Kg-dry**	1	2/16/2020 01:23 AM
Fluorene	**38**		**15**	**µg/Kg-dry**	1	2/16/2020 01:23 AM
Indeno(1,2,3-cd)pyrene	**200**		**15**	**µg/Kg-dry**	1	2/16/2020 01:23 AM
Naphthalene	ND		15	µg/Kg-dry	1	2/16/2020 01:23 AM
Phenanthrene	**390**		**15**	**µg/Kg-dry**	1	2/16/2020 01:23 AM
Pyrene	**520**		**15**	**µg/Kg-dry**	1	2/16/2020 01:23 AM
Surr: 2-Fluorobiphenyl	*108*		*20-140*	*%REC*	1	2/16/2020 01:23 AM
Surr: 4-Terphenyl-d14	*76.2*		*22-172*	*%REC*	1	2/16/2020 01:23 AM
Surr: Nitrobenzene-d5	*91.5*		*28-140*	*%REC*	1	2/16/2020 01:23 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/13/20 11:51		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
1,1,1-Trichloroethane	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
1,1,2,2-Tetrachloroethane	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
1,1,2-Trichloroethane	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
1,1,2-Trichlorotrifluoroethane	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
1,1-Dichloroethane	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
1,1-Dichloroethene	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
1,2,3-Trichloropropane	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
1,2,4-Trichlorobenzene	ND		160	µg/Kg-dry	1	2/19/2020 01:27 PM
1,2,4-Trimethylbenzene	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
1,2-Dibromo-3-chloropropane	ND		160	µg/Kg-dry	1	2/19/2020 01:27 PM
1,2-Dibromoethane	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
1,2-Dichlorobenzene	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
1,2-Dichloroethane	ND		160	µg/Kg-dry	1	2/19/2020 01:27 PM
1,2-Dichloropropane	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
1,3,5-Trimethylbenzene	ND		160	µg/Kg-dry	1	2/19/2020 01:27 PM
1,3-Dichlorobenzene	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
1,4-Dichlorobenzene	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
2-Butanone	ND		310	µg/Kg-dry	1	2/19/2020 01:27 PM
2-Hexanone	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
2-Methylnaphthalene	**180**		**160**	**µg/Kg-dry**	1	2/19/2020 01:27 PM
4-Methyl-2-pentanone	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
Acetone	ND		160	µg/Kg-dry	1	2/19/2020 01:27 PM
Acrylonitrile	ND		160	µg/Kg-dry	1	2/19/2020 01:27 PM
Benzene	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
Bromochloromethane	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
Bromodichloromethane	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20020850
Sample ID: SB-13 3.5-4.5'
Lab ID: 20020850-03
Collection Date: 2/10/2020 02:45 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
Bromomethane	ND		160	µg/Kg-dry	1	2/19/2020 01:27 PM
Carbon disulfide	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
Carbon tetrachloride	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
Chlorobenzene	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
Chloroethane	ND		160	µg/Kg-dry	1	2/19/2020 01:27 PM
Chloroform	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
Chloromethane	ND		160	µg/Kg-dry	1	2/19/2020 01:27 PM
cis-1,2-Dichloroethene	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
cis-1,3-Dichloropropene	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
Dibromochloromethane	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
Dibromomethane	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
Dichlorodifluoromethane	ND		160	µg/Kg-dry	1	2/19/2020 01:27 PM
Diethyl ether	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
Ethylbenzene	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
Hexachloroethane	ND		160	µg/Kg-dry	1	2/19/2020 01:27 PM
Isopropylbenzene	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
m,p-Xylene	ND		93	µg/Kg-dry	1	2/19/2020 01:27 PM
Methyl iodide	ND		780	µg/Kg-dry	1	2/19/2020 01:27 PM
Methyl tert-butyl ether	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
Methylene chloride	ND		390	µg/Kg-dry	1	2/19/2020 01:27 PM
Naphthalene	ND		160	µg/Kg-dry	1	2/19/2020 01:27 PM
n-Propylbenzene	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
o-Xylene	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
Styrene	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
Tetrachloroethene	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
Toluene	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
trans-1,2-Dichloroethene	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
trans-1,3-Dichloropropene	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
trans-1,4-Dichloro-2-butene	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
Trichloroethene	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
Trichlorofluoromethane	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
Vinyl acetate	ND		390	µg/Kg-dry	1	2/19/2020 01:27 PM
Vinyl chloride	ND		47	µg/Kg-dry	1	2/19/2020 01:27 PM
Xylenes, Total	ND		140	µg/Kg-dry	1	2/19/2020 01:27 PM
Surr: 1,2-Dichloroethane-d4	*106*		*70-130*	*%REC*	1	2/19/2020 01:27 PM
Surr: 4-Bromofluorobenzene	*102*		*70-130*	*%REC*	1	2/19/2020 01:27 PM
Surr: Dibromofluoromethane	*95.4*		*70-130*	*%REC*	1	2/19/2020 01:27 PM
Surr: Toluene-d8	*98.3*		*70-130*	*%REC*	1	2/19/2020 01:27 PM

MOISTURE **SW3550C** Analyst: **KTP**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client:	PM Environmental		
Project:	Sediment Project 01-5303-3-0001	**Work Order:**	20020850
Sample ID:	SB-13 3.5-4.5'	**Lab ID:**	20020850-03
Collection Date:	2/10/2020 02:45 PM	**Matrix:**	SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Moisture	**19**		**0.10**	**% of sample**	1	2/14/2020 10:18 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: SB-13 4.5-5.5' **Lab ID:** 20020850-04
Collection Date: 2/10/2020 03:05 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/14/20 12:27		Analyst: **RM**
Aroclor 1016	ND		670	µg/Kg-dry	1	2/16/2020 07:23 PM
Aroclor 1221	ND		670	µg/Kg-dry	1	2/16/2020 07:23 PM
Aroclor 1232	ND		670	µg/Kg-dry	1	2/16/2020 07:23 PM
Aroclor 1242	ND		670	µg/Kg-dry	1	2/16/2020 07:23 PM
Aroclor 1248	ND		670	µg/Kg-dry	1	2/16/2020 07:23 PM
Aroclor 1254	ND		670	µg/Kg-dry	1	2/16/2020 07:23 PM
Aroclor 1260	ND		670	µg/Kg-dry	1	2/16/2020 07:23 PM
Aroclor 1262	ND		670	µg/Kg-dry	1	2/16/2020 07:23 PM
Aroclor 1268	ND		670	µg/Kg-dry	1	2/16/2020 07:23 PM
Surr: Decachlorobiphenyl	*81.6*		*40-140*	*%REC*	1	2/16/2020 07:23 PM
Surr: Tetrachloro-m-xylene	*82.7*		*45-124*	*%REC*	1	2/16/2020 07:23 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/18/20 13:11		Analyst: **RSH**
Mercury	**0.63**		**0.049**	**mg/Kg-dry**	2	2/19/2020 11:24 AM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/17/20 17:56		Analyst: **DSC**
Arsenic	**7.6**		**0.55**	**mg/Kg-dry**	1	2/18/2020 07:48 PM
Barium	**130**		**0.55**	**mg/Kg-dry**	1	2/18/2020 07:48 PM
Cadmium	**6.3**		**0.22**	**mg/Kg-dry**	1	2/18/2020 07:48 PM
Chromium	**170**		**0.55**	**mg/Kg-dry**	1	2/18/2020 07:48 PM
Copper	**700**		**55**	**mg/Kg-dry**	100	2/19/2020 03:30 PM
Lead	**110**		**0.55**	**mg/Kg-dry**	1	2/18/2020 07:48 PM
Nickel	**31**		**0.55**	**mg/Kg-dry**	1	2/18/2020 07:48 PM
Selenium	**3.7**		**0.55**	**mg/Kg-dry**	1	2/18/2020 07:48 PM
Silver	**2.1**		**0.55**	**mg/Kg-dry**	1	2/18/2020 07:48 PM
Thorium	**1.2**		**0.55**	**mg/Kg-dry**	1	2/18/2020 07:48 PM
Uranium	**4.1**		**0.55**	**mg/Kg-dry**	1	2/18/2020 07:48 PM
Zinc	**1,400**		**110**	**mg/Kg-dry**	100	2/19/2020 03:30 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/19/20 18:03		Analyst: **EEW**
1-Methylnaphthalene	ND		6.4	µg/Kg-dry	1	2/20/2020 12:45 PM
2-Chloronaphthalene	ND		6.4	µg/Kg-dry	1	2/20/2020 12:45 PM
2-Methylnaphthalene	ND		6.4	µg/Kg-dry	1	2/20/2020 12:45 PM
Acenaphthene	ND		6.4	µg/Kg-dry	1	2/20/2020 12:45 PM
Acenaphthylene	ND		6.4	µg/Kg-dry	1	2/20/2020 12:45 PM
Anthracene	ND		6.4	µg/Kg-dry	1	2/20/2020 12:45 PM
Benzo(a)anthracene	**20**		**6.4**	**µg/Kg-dry**	1	2/20/2020 12:45 PM
Benzo(a)pyrene	**16**		**6.4**	**µg/Kg-dry**	1	2/20/2020 12:45 PM
Benzo(b)fluoranthene	**22**		**6.4**	**µg/Kg-dry**	1	2/20/2020 12:45 PM
Benzo(g,h,i)perylene	**10**		**6.4**	**µg/Kg-dry**	1	2/20/2020 12:45 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: SB-13 4.5-5.5' **Lab ID:** 20020850-04
Collection Date: 2/10/2020 03:05 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**8.8**		**6.4**	**µg/Kg-dry**	1	2/20/2020 12:45 PM
Chrysene	**25**		**6.4**	**µg/Kg-dry**	1	2/20/2020 12:45 PM
Dibenzo(a,h)anthracene	ND		6.4	µg/Kg-dry	1	2/20/2020 12:45 PM
Fluoranthene	**42**		**6.4**	**µg/Kg-dry**	1	2/20/2020 12:45 PM
Fluorene	ND		6.4	µg/Kg-dry	1	2/20/2020 12:45 PM
Indeno(1,2,3-cd)pyrene	**11**		**6.4**	**µg/Kg-dry**	1	2/20/2020 12:45 PM
Naphthalene	**17**		**6.4**	**µg/Kg-dry**	1	2/20/2020 12:45 PM
Phenanthrene	**26**		**6.4**	**µg/Kg-dry**	1	2/20/2020 12:45 PM
Pyrene	**29**		**6.4**	**µg/Kg-dry**	1	2/20/2020 12:45 PM
Surr: 2-Fluorobiphenyl	*75.2*		*20-140*	*%REC*	1	2/20/2020 12:45 PM
Surr: 4-Terphenyl-d14	*71.1*		*22-172*	*%REC*	1	2/20/2020 12:45 PM
Surr: Nitrobenzene-d5	*66.2*		*28-140*	*%REC*	1	2/20/2020 12:45 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/13/20 11:51		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
1,1,1-Trichloroethane	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
1,1,2,2-Tetrachloroethane	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
1,1,2-Trichloroethane	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
1,1,2-Trichlorotrifluoroethane	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
1,1-Dichloroethane	**100**		**74**	**µg/Kg-dry**	1	2/19/2020 01:44 PM
1,1-Dichloroethene	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
1,2,3-Trichloropropane	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
1,2,4-Trichlorobenzene	ND		250	µg/Kg-dry	1	2/19/2020 01:44 PM
1,2,4-Trimethylbenzene	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
1,2-Dibromo-3-chloropropane	ND		250	µg/Kg-dry	1	2/19/2020 01:44 PM
1,2-Dibromoethane	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
1,2-Dichlorobenzene	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
1,2-Dichloroethane	ND		250	µg/Kg-dry	1	2/19/2020 01:44 PM
1,2-Dichloropropane	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
1,3,5-Trimethylbenzene	ND		250	µg/Kg-dry	1	2/19/2020 01:44 PM
1,3-Dichlorobenzene	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
1,4-Dichlorobenzene	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
2-Butanone	ND		490	µg/Kg-dry	1	2/19/2020 01:44 PM
2-Hexanone	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
2-Methylnaphthalene	ND		250	µg/Kg-dry	1	2/19/2020 01:44 PM
4-Methyl-2-pentanone	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
Acetone	ND		250	µg/Kg-dry	1	2/19/2020 01:44 PM
Acrylonitrile	ND		250	µg/Kg-dry	1	2/19/2020 01:44 PM
Benzene	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
Bromochloromethane	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
Bromodichloromethane	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: SB-13 4.5-5.5' **Lab ID:** 20020850-04
Collection Date: 2/10/2020 03:05 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
Bromomethane	ND		250	µg/Kg-dry	1	2/19/2020 01:44 PM
Carbon disulfide	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
Carbon tetrachloride	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
Chlorobenzene	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
Chloroethane	ND		250	µg/Kg-dry	1	2/19/2020 01:44 PM
Chloroform	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
Chloromethane	ND		250	µg/Kg-dry	1	2/19/2020 01:44 PM
cis-1,2-Dichloroethene	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
cis-1,3-Dichloropropene	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
Dibromochloromethane	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
Dibromomethane	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
Dichlorodifluoromethane	ND		250	µg/Kg-dry	1	2/19/2020 01:44 PM
Diethyl ether	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
Ethylbenzene	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
Hexachloroethane	ND		250	µg/Kg-dry	1	2/19/2020 01:44 PM
Isopropylbenzene	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
m,p-Xylene	ND		150	µg/Kg-dry	1	2/19/2020 01:44 PM
Methyl iodide	ND		1,200	µg/Kg-dry	1	2/19/2020 01:44 PM
Methyl tert-butyl ether	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
Methylene chloride	ND		620	µg/Kg-dry	1	2/19/2020 01:44 PM
Naphthalene	ND		250	µg/Kg-dry	1	2/19/2020 01:44 PM
n-Propylbenzene	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
o-Xylene	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
Styrene	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
Tetrachloroethene	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
Toluene	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
trans-1,2-Dichloroethene	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
trans-1,3-Dichloropropene	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
trans-1,4-Dichloro-2-butene	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
Trichloroethene	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
Trichlorofluoromethane	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
Vinyl acetate	ND		620	µg/Kg-dry	1	2/19/2020 01:44 PM
Vinyl chloride	ND		74	µg/Kg-dry	1	2/19/2020 01:44 PM
Xylenes, Total	ND		220	µg/Kg-dry	1	2/19/2020 01:44 PM
Surr: 1,2-Dichloroethane-d4	*108*		*70-130*	*%REC*	1	2/19/2020 01:44 PM
Surr: 4-Bromofluorobenzene	*103*		*70-130*	*%REC*	1	2/19/2020 01:44 PM
Surr: Dibromofluoromethane	*96.8*		*70-130*	*%REC*	1	2/19/2020 01:44 PM
Surr: Toluene-d8	*100*		*70-130*	*%REC*	1	2/19/2020 01:44 PM

MOISTURE **SW3550C** Analyst: **KTP**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client:	PM Environmental		
Project:	Sediment Project 01-5303-3-0001	**Work Order:**	20020850
Sample ID:	SB-13 4.5-5.5'	**Lab ID:**	20020850-04
Collection Date:	2/10/2020 03:05 PM	**Matrix:**	SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Moisture	**36**		**0.10**	**% of sample**	1	2/14/2020 10:18 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: SB-14 1.5-2.5' **Lab ID:** 20020850-05
Collection Date: 2/10/2020 05:20 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/14/20 12:27		Analyst: **RM**
Aroclor 1016	ND		430	µg/Kg-dry	1	2/16/2020 07:38 PM
Aroclor 1221	ND		430	µg/Kg-dry	1	2/16/2020 07:38 PM
Aroclor 1232	ND		430	µg/Kg-dry	1	2/16/2020 07:38 PM
Aroclor 1242	ND		430	µg/Kg-dry	1	2/16/2020 07:38 PM
Aroclor 1248	ND		430	µg/Kg-dry	1	2/16/2020 07:38 PM
Aroclor 1254	ND		430	µg/Kg-dry	1	2/16/2020 07:38 PM
Aroclor 1260	ND		430	µg/Kg-dry	1	2/16/2020 07:38 PM
Aroclor 1262	ND		430	µg/Kg-dry	1	2/16/2020 07:38 PM
Aroclor 1268	ND		430	µg/Kg-dry	1	2/16/2020 07:38 PM
Surr: Decachlorobiphenyl	*81.2*		*40-140*	*%REC*	1	2/16/2020 07:38 PM
Surr: Tetrachloro-m-xylene	*81.1*		*45-124*	*%REC*	1	2/16/2020 07:38 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/18/20 13:11		Analyst: **RSH**
Mercury	ND		0.019	mg/Kg-dry	1	2/18/2020 06:00 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/17/20 17:56		Analyst: **DSC**
Arsenic	**2.8**		**0.41**	**mg/Kg-dry**	1	2/18/2020 07:50 PM
Barium	**98**		**0.41**	**mg/Kg-dry**	1	2/18/2020 07:50 PM
Cadmium	ND		0.16	mg/Kg-dry	1	2/18/2020 07:50 PM
Chromium	**33**		**0.41**	**mg/Kg-dry**	1	2/18/2020 07:50 PM
Copper	**48**		**4.1**	**mg/Kg-dry**	10	2/19/2020 03:32 PM
Lead	**11**		**0.41**	**mg/Kg-dry**	1	2/18/2020 07:50 PM
Nickel	**5.5**		**0.41**	**mg/Kg-dry**	1	2/18/2020 07:50 PM
Selenium	**0.41**		**0.41**	**mg/Kg-dry**	1	2/18/2020 07:50 PM
Silver	ND		0.41	mg/Kg-dry	1	2/18/2020 07:50 PM
Thorium	**1.2**		**0.41**	**mg/Kg-dry**	1	2/18/2020 07:50 PM
Uranium	**1.4**		**0.41**	**mg/Kg-dry**	1	2/18/2020 07:50 PM
Zinc	**48**		**8.1**	**mg/Kg-dry**	10	2/19/2020 03:32 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/19/20 18:03		Analyst: **EEW**
1-Methylnaphthalene	ND		4.5	µg/Kg-dry	1	2/20/2020 01:01 AM
2-Chloronaphthalene	ND		4.5	µg/Kg-dry	1	2/20/2020 01:01 AM
2-Methylnaphthalene	ND		4.5	µg/Kg-dry	1	2/20/2020 01:01 AM
Acenaphthene	ND		4.5	µg/Kg-dry	1	2/20/2020 01:01 AM
Acenaphthylene	**19**		**4.5**	**µg/Kg-dry**	1	2/20/2020 01:01 AM
Anthracene	**37**		**4.5**	**µg/Kg-dry**	1	2/20/2020 01:01 AM
Benzo(a)anthracene	**210**		**4.5**	**µg/Kg-dry**	1	2/20/2020 01:01 AM
Benzo(a)pyrene	**130**		**4.5**	**µg/Kg-dry**	1	2/20/2020 01:01 AM
Benzo(b)fluoranthene	**220**		**4.5**	**µg/Kg-dry**	1	2/20/2020 01:01 AM
Benzo(g,h,i)perylene	**230**		**4.5**	**µg/Kg-dry**	1	2/20/2020 01:01 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: SB-14 1.5-2.5' **Lab ID:** 20020850-05
Collection Date: 2/10/2020 05:20 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**200**		**4.5**	**µg/Kg-dry**	1	2/20/2020 01:01 AM
Chrysene	**200**		**4.5**	**µg/Kg-dry**	1	2/20/2020 01:01 AM
Dibenzo(a,h)anthracene	**39**		**4.5**	**µg/Kg-dry**	1	2/20/2020 01:01 AM
Fluoranthene	**90**		**4.5**	**µg/Kg-dry**	1	2/20/2020 01:01 AM
Fluorene	ND		4.5	µg/Kg-dry	1	2/20/2020 01:01 AM
Indeno(1,2,3-cd)pyrene	**130**		**4.5**	**µg/Kg-dry**	1	2/20/2020 01:01 AM
Naphthalene	ND		4.5	µg/Kg-dry	1	2/20/2020 01:01 AM
Phenanthrene	**30**		**4.5**	**µg/Kg-dry**	1	2/20/2020 01:01 AM
Pyrene	**100**		**4.5**	**µg/Kg-dry**	1	2/20/2020 01:01 AM
Surr: 2-Fluorobiphenyl	*92.2*		*20-140*	*%REC*	1	2/20/2020 01:01 AM
Surr: 4-Terphenyl-d14	*91.6*		*22-172*	*%REC*	1	2/20/2020 01:01 AM
Surr: Nitrobenzene-d5	*84.2*		*28-140*	*%REC*	1	2/20/2020 01:01 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/13/20 11:51		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
1,1,1-Trichloroethane	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
1,1,2,2-Tetrachloroethane	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
1,1,2-Trichloroethane	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
1,1,2-Trichlorotrifluoroethane	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
1,1-Dichloroethane	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
1,1-Dichloroethene	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
1,2,3-Trichloropropane	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
1,2,4-Trichlorobenzene	ND		140	µg/Kg-dry	1	2/19/2020 02:00 PM
1,2,4-Trimethylbenzene	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
1,2-Dibromo-3-chloropropane	ND		140	µg/Kg-dry	1	2/19/2020 02:00 PM
1,2-Dibromoethane	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
1,2-Dichlorobenzene	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
1,2-Dichloroethane	ND		140	µg/Kg-dry	1	2/19/2020 02:00 PM
1,2-Dichloropropane	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
1,3,5-Trimethylbenzene	ND		140	µg/Kg-dry	1	2/19/2020 02:00 PM
1,3-Dichlorobenzene	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
1,4-Dichlorobenzene	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
2-Butanone	ND		280	µg/Kg-dry	1	2/19/2020 02:00 PM
2-Hexanone	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
2-Methylnaphthalene	ND		140	µg/Kg-dry	1	2/19/2020 02:00 PM
4-Methyl-2-pentanone	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
Acetone	ND		140	µg/Kg-dry	1	2/19/2020 02:00 PM
Acrylonitrile	ND		140	µg/Kg-dry	1	2/19/2020 02:00 PM
Benzene	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
Bromochloromethane	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
Bromodichloromethane	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20020850
Sample ID: SB-14 1.5-2.5'
Lab ID: 20020850-05
Collection Date: 2/10/2020 05:20 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
Bromomethane	ND		140	µg/Kg-dry	1	2/19/2020 02:00 PM
Carbon disulfide	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
Carbon tetrachloride	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
Chlorobenzene	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
Chloroethane	ND		140	µg/Kg-dry	1	2/19/2020 02:00 PM
Chloroform	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
Chloromethane	ND		140	µg/Kg-dry	1	2/19/2020 02:00 PM
cis-1,2-Dichloroethene	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
cis-1,3-Dichloropropene	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
Dibromochloromethane	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
Dibromomethane	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
Dichlorodifluoromethane	ND		140	µg/Kg-dry	1	2/19/2020 02:00 PM
Diethyl ether	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
Ethylbenzene	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
Hexachloroethane	ND		140	µg/Kg-dry	1	2/19/2020 02:00 PM
Isopropylbenzene	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
m,p-Xylene	ND		83	µg/Kg-dry	1	2/19/2020 02:00 PM
Methyl iodide	ND		690	µg/Kg-dry	1	2/19/2020 02:00 PM
Methyl tert-butyl ether	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
Methylene chloride	ND		350	µg/Kg-dry	1	2/19/2020 02:00 PM
Naphthalene	ND		140	µg/Kg-dry	1	2/19/2020 02:00 PM
n-Propylbenzene	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
o-Xylene	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
Styrene	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
Tetrachloroethene	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
Toluene	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
trans-1,2-Dichloroethene	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
trans-1,3-Dichloropropene	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
trans-1,4-Dichloro-2-butene	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
Trichloroethene	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
Trichlorofluoromethane	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
Vinyl acetate	ND		350	µg/Kg-dry	1	2/19/2020 02:00 PM
Vinyl chloride	ND		42	µg/Kg-dry	1	2/19/2020 02:00 PM
Xylenes, Total	ND		120	µg/Kg-dry	1	2/19/2020 02:00 PM
Surr: 1,2-Dichloroethane-d4	*103*		*70-130*	*%REC*	1	2/19/2020 02:00 PM
Surr: 4-Bromofluorobenzene	*101*		*70-130*	*%REC*	1	2/19/2020 02:00 PM
Surr: Dibromofluoromethane	*95.4*		*70-130*	*%REC*	1	2/19/2020 02:00 PM
Surr: Toluene-d8	*99.4*		*70-130*	*%REC*	1	2/19/2020 02:00 PM

MOISTURE **SW3550C** Analyst: **KTP**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client:	PM Environmental		
Project:	Sediment Project 01-5303-3-0001	**Work Order:**	20020850
Sample ID:	SB-14 1.5-2.5'	**Lab ID:**	20020850-05
Collection Date:	2/10/2020 05:20 PM	**Matrix:**	SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Moisture	**8.6**		**0.10**	**% of sample**	1	2/14/2020 10:18 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: A1
Collection Date: 2/10/2020 02:00 PM

Work Order: 20020850
Lab ID: 20020850-06
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			**SW8260C**			Analyst: **JNS**
1,1,1,2-Tetrachloroethane	ND		1.0	µg/L	1	2/19/2020 04:49 PM
1,1,1-Trichloroethane	ND		1.0	µg/L	1	2/19/2020 04:49 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	2/19/2020 04:49 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	2/19/2020 04:49 PM
1,1,2-Trichlorotrifluoroethane	ND		1.0	µg/L	1	2/19/2020 04:49 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	2/19/2020 04:49 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	2/19/2020 04:49 PM
1,2,3-Trichloropropane	ND		1.0	µg/L	1	2/19/2020 04:49 PM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	2/19/2020 04:49 PM
1,2,4-Trimethylbenzene	ND		1.0	µg/L	1	2/19/2020 04:49 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	2/19/2020 04:49 PM
1,2-Dibromoethane	ND		1.0	µg/L	1	2/19/2020 04:49 PM
1,2-Dichlorobenzene	ND		1.0	µg/L	1	2/19/2020 04:49 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	2/19/2020 04:49 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	2/19/2020 04:49 PM
1,3,5-Trimethylbenzene	ND		1.0	µg/L	1	2/19/2020 04:49 PM
1,3-Dichlorobenzene	ND		1.0	µg/L	1	2/19/2020 04:49 PM
1,4-Dichlorobenzene	ND		1.0	µg/L	1	2/19/2020 04:49 PM
2-Butanone	ND		5.0	µg/L	1	2/19/2020 04:49 PM
2-Hexanone	ND		5.0	µg/L	1	2/19/2020 04:49 PM
2-Methylnaphthalene	ND		5.0	µg/L	1	2/19/2020 04:49 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	2/19/2020 04:49 PM
Acetone	ND		10	µg/L	1	2/19/2020 04:49 PM
Acrylonitrile	ND		1.0	µg/L	1	2/19/2020 04:49 PM
Benzene	ND		1.0	µg/L	1	2/19/2020 04:49 PM
Bromochloromethane	ND		1.0	µg/L	1	2/19/2020 04:49 PM
Bromodichloromethane	ND		1.0	µg/L	1	2/19/2020 04:49 PM
Bromoform	ND		1.0	µg/L	1	2/19/2020 04:49 PM
Bromomethane	ND		1.0	µg/L	1	2/19/2020 04:49 PM
Carbon disulfide	ND		1.0	µg/L	1	2/19/2020 04:49 PM
Carbon tetrachloride	ND		1.0	µg/L	1	2/19/2020 04:49 PM
Chlorobenzene	ND		1.0	µg/L	1	2/19/2020 04:49 PM
Chloroethane	ND		1.0	µg/L	1	2/19/2020 04:49 PM
Chloroform	ND		1.0	µg/L	1	2/19/2020 04:49 PM
Chloromethane	ND		1.0	µg/L	1	2/19/2020 04:49 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	2/19/2020 04:49 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	2/19/2020 04:49 PM
Dibromochloromethane	ND		1.0	µg/L	1	2/19/2020 04:49 PM
Dibromomethane	ND		1.0	µg/L	1	2/19/2020 04:49 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20020850
Sample ID: A1
Lab ID: 20020850-06
Collection Date: 2/10/2020 02:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dichlorodifluoromethane	ND		1.0	µg/L	1	2/19/2020 04:49 PM
Diethyl ether	ND		1.0	µg/L	1	2/19/2020 04:49 PM
Ethylbenzene	ND		1.0	µg/L	1	2/19/2020 04:49 PM
Hexachloroethane	ND		1.0	µg/L	1	2/19/2020 04:49 PM
Isopropylbenzene	ND		1.0	µg/L	1	2/19/2020 04:49 PM
m,p-Xylene	ND		2.0	µg/L	1	2/19/2020 04:49 PM
Methyl iodide	ND		5.0	µg/L	1	2/19/2020 04:49 PM
Methyl tert-butyl ether	ND		1.0	µg/L	1	2/19/2020 04:49 PM
Methylene chloride	ND		5.0	µg/L	1	2/19/2020 04:49 PM
Naphthalene	ND		5.0	µg/L	1	2/19/2020 04:49 PM
n-Propylbenzene	ND		1.0	µg/L	1	2/19/2020 04:49 PM
o-Xylene	ND		1.0	µg/L	1	2/19/2020 04:49 PM
Styrene	ND		1.0	µg/L	1	2/19/2020 04:49 PM
Tetrachloroethene	ND		1.0	µg/L	1	2/19/2020 04:49 PM
Toluene	ND		1.0	µg/L	1	2/19/2020 04:49 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	2/19/2020 04:49 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	2/19/2020 04:49 PM
trans-1,4-Dichloro-2-butene	ND		2.0	µg/L	1	2/19/2020 04:49 PM
Trichloroethene	ND		1.0	µg/L	1	2/19/2020 04:49 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	2/19/2020 04:49 PM
Vinyl acetate	ND		5.0	µg/L	1	2/19/2020 04:49 PM
Vinyl chloride	ND		1.0	µg/L	1	2/19/2020 04:49 PM
Xylenes, Total	ND		3.0	µg/L	1	2/19/2020 04:49 PM
Surr: 1,2-Dichloroethane-d4	*99.1*		*75-120*	*%REC*	1	2/19/2020 04:49 PM
Surr: 4-Bromofluorobenzene	*100*		*80-110*	*%REC*	1	2/19/2020 04:49 PM
Surr: Dibromofluoromethane	*104*		*85-115*	*%REC*	1	2/19/2020 04:49 PM
Surr: Toluene-d8	*95.4*		*85-110*	*%REC*	1	2/19/2020 04:49 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: A2
Collection Date: 2/10/2020 02:30 PM

Work Order: 20020850
Lab ID: 20020850-07
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3511 2/18/20 14:09	Analyst: **RM**
Aroclor 1016	ND		0.20	µg/L	1	2/19/2020 12:08 AM
Aroclor 1221	ND		0.20	µg/L	1	2/19/2020 12:08 AM
Aroclor 1232	ND		0.20	µg/L	1	2/19/2020 12:08 AM
Aroclor 1242	ND		0.20	µg/L	1	2/19/2020 12:08 AM
Aroclor 1248	ND		0.20	µg/L	1	2/19/2020 12:08 AM
Aroclor 1254	ND		0.20	µg/L	1	2/19/2020 12:08 AM
Aroclor 1260	ND		0.20	µg/L	1	2/19/2020 12:08 AM
Aroclor 1262	ND		0.20	µg/L	1	2/19/2020 12:08 AM
Aroclor 1268	ND		0.20	µg/L	1	2/19/2020 12:08 AM
Surr: Decachlorobiphenyl	*75.4*		*30-150*	*%REC*	1	2/19/2020 12:08 AM
Surr: Tetrachloro-m-xylene	*54.0*		*50-150*	*%REC*	1	2/19/2020 12:08 AM
MERCURY BY CVAA			**SW7470A**		Prep: SW7470 2/18/20 12:51	Analyst: **RSH**
Mercury	ND		0.00020	mg/L	1	2/18/2020 04:23 PM
METALS BY ICP-MS			**SW6020B**		Prep: SW3015A 2/18/20 10:00	Analyst: **STP**
Arsenic	ND		0.0050	mg/L	1	2/18/2020 02:16 PM
Barium	ND		0.0050	mg/L	1	2/18/2020 02:16 PM
Cadmium	ND		0.0020	mg/L	1	2/18/2020 02:16 PM
Chromium	ND		0.0050	mg/L	1	2/18/2020 02:16 PM
Copper	ND		0.0050	mg/L	1	2/18/2020 02:16 PM
Lead	ND		0.0050	mg/L	1	2/18/2020 02:16 PM
Nickel	ND		0.0050	mg/L	1	2/18/2020 02:16 PM
Selenium	ND		0.0050	mg/L	1	2/18/2020 02:16 PM
Silver	ND		0.0050	mg/L	1	2/18/2020 02:16 PM
Thorium	ND		0.0050	mg/L	1	2/18/2020 02:16 PM
Uranium	ND		0.0050	mg/L	1	2/18/2020 02:16 PM
Zinc	ND		0.010	mg/L	1	2/18/2020 02:16 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**		Prep: SW3511 2/13/20 13:34	Analyst: **EEW**
1-Methylnaphthalene	ND		0.17	µg/L	1	2/16/2020 06:18 AM
2-Chloronaphthalene	ND		0.17	µg/L	1	2/16/2020 06:18 AM
2-Methylnaphthalene	ND		0.17	µg/L	1	2/16/2020 06:18 AM
Acenaphthene	ND		0.17	µg/L	1	2/16/2020 06:18 AM
Acenaphthylene	ND		0.17	µg/L	1	2/16/2020 06:18 AM
Anthracene	ND		0.17	µg/L	1	2/16/2020 06:18 AM
Benzo(a)anthracene	ND		0.17	µg/L	1	2/16/2020 06:18 AM
Benzo(a)pyrene	ND		0.17	µg/L	1	2/16/2020 06:18 AM
Benzo(b)fluoranthene	ND		0.17	µg/L	1	2/16/2020 06:18 AM
Benzo(g,h,i)perylene	ND		0.17	µg/L	1	2/16/2020 06:18 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20020850
Sample ID: A2
Lab ID: 20020850-07
Collection Date: 2/10/2020 02:30 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		0.17	µg/L	1	2/16/2020 06:18 AM
Chrysene	ND		0.17	µg/L	1	2/16/2020 06:18 AM
Dibenzo(a,h)anthracene	ND		0.17	µg/L	1	2/16/2020 06:18 AM
Fluoranthene	ND		0.17	µg/L	1	2/16/2020 06:18 AM
Fluorene	ND		0.17	µg/L	1	2/16/2020 06:18 AM
Indeno(1,2,3-cd)pyrene	ND		0.17	µg/L	1	2/16/2020 06:18 AM
Naphthalene	ND		0.17	µg/L	1	2/16/2020 06:18 AM
Phenanthrene	ND		0.17	µg/L	1	2/16/2020 06:18 AM
Pyrene	ND		0.17	µg/L	1	2/16/2020 06:18 AM
Surr: 2-Fluorobiphenyl	*95.6*		*20-140*	*%REC*	1	2/16/2020 06:18 AM
Surr: 4-Terphenyl-d14	*78.5*		*20-172*	*%REC*	1	2/16/2020 06:18 AM
Surr: Nitrobenzene-d5	*40.6*		*10-140*	*%REC*	1	2/16/2020 06:18 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**			Analyst: **JNS**
1,1,1,2-Tetrachloroethane	ND		1.0	µg/L	1	2/19/2020 05:09 PM
1,1,1-Trichloroethane	ND		1.0	µg/L	1	2/19/2020 05:09 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	2/19/2020 05:09 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	2/19/2020 05:09 PM
1,1,2-Trichlorotrifluoroethane	ND		1.0	µg/L	1	2/19/2020 05:09 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	2/19/2020 05:09 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	2/19/2020 05:09 PM
1,2,3-Trichloropropane	ND		1.0	µg/L	1	2/19/2020 05:09 PM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	2/19/2020 05:09 PM
1,2,4-Trimethylbenzene	ND		1.0	µg/L	1	2/19/2020 05:09 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	2/19/2020 05:09 PM
1,2-Dibromoethane	ND		1.0	µg/L	1	2/19/2020 05:09 PM
1,2-Dichlorobenzene	ND		1.0	µg/L	1	2/19/2020 05:09 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	2/19/2020 05:09 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	2/19/2020 05:09 PM
1,3,5-Trimethylbenzene	ND		1.0	µg/L	1	2/19/2020 05:09 PM
1,3-Dichlorobenzene	ND		1.0	µg/L	1	2/19/2020 05:09 PM
1,4-Dichlorobenzene	ND		1.0	µg/L	1	2/19/2020 05:09 PM
2-Butanone	ND		5.0	µg/L	1	2/19/2020 05:09 PM
2-Hexanone	ND		5.0	µg/L	1	2/19/2020 05:09 PM
2-Methylnaphthalene	ND		5.0	µg/L	1	2/19/2020 05:09 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	2/19/2020 05:09 PM
Acetone	ND		10	µg/L	1	2/19/2020 05:09 PM
Acrylonitrile	ND		1.0	µg/L	1	2/19/2020 05:09 PM
Benzene	ND		1.0	µg/L	1	2/19/2020 05:09 PM
Bromochloromethane	ND		1.0	µg/L	1	2/19/2020 05:09 PM
Bromodichloromethane	ND		1.0	µg/L	1	2/19/2020 05:09 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20020850
Sample ID: A2
Lab ID: 20020850-07
Collection Date: 2/10/2020 02:30 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		1.0	µg/L	1	2/19/2020 05:09 PM
Bromomethane	ND		1.0	µg/L	1	2/19/2020 05:09 PM
Carbon disulfide	ND		1.0	µg/L	1	2/19/2020 05:09 PM
Carbon tetrachloride	ND		1.0	µg/L	1	2/19/2020 05:09 PM
Chlorobenzene	ND		1.0	µg/L	1	2/19/2020 05:09 PM
Chloroethane	ND		1.0	µg/L	1	2/19/2020 05:09 PM
Chloroform	**1.1**		**1.0**	**µg/L**	1	2/19/2020 05:09 PM
Chloromethane	ND		1.0	µg/L	1	2/19/2020 05:09 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	2/19/2020 05:09 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	2/19/2020 05:09 PM
Dibromochloromethane	ND		1.0	µg/L	1	2/19/2020 05:09 PM
Dibromomethane	ND		1.0	µg/L	1	2/19/2020 05:09 PM
Dichlorodifluoromethane	ND		1.0	µg/L	1	2/19/2020 05:09 PM
Diethyl ether	ND		1.0	µg/L	1	2/19/2020 05:09 PM
Ethylbenzene	ND		1.0	µg/L	1	2/19/2020 05:09 PM
Hexachloroethane	ND		1.0	µg/L	1	2/19/2020 05:09 PM
Isopropylbenzene	ND		1.0	µg/L	1	2/19/2020 05:09 PM
m,p-Xylene	ND		2.0	µg/L	1	2/19/2020 05:09 PM
Methyl iodide	ND		5.0	µg/L	1	2/19/2020 05:09 PM
Methyl tert-butyl ether	ND		1.0	µg/L	1	2/19/2020 05:09 PM
Methylene chloride	ND		5.0	µg/L	1	2/19/2020 05:09 PM
Naphthalene	ND		5.0	µg/L	1	2/19/2020 05:09 PM
n-Propylbenzene	ND		1.0	µg/L	1	2/19/2020 05:09 PM
o-Xylene	ND		1.0	µg/L	1	2/19/2020 05:09 PM
Styrene	ND		1.0	µg/L	1	2/19/2020 05:09 PM
Tetrachloroethene	ND		1.0	µg/L	1	2/19/2020 05:09 PM
Toluene	ND		1.0	µg/L	1	2/19/2020 05:09 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	2/19/2020 05:09 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	2/19/2020 05:09 PM
trans-1,4-Dichloro-2-butene	ND		2.0	µg/L	1	2/19/2020 05:09 PM
Trichloroethene	ND		1.0	µg/L	1	2/19/2020 05:09 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	2/19/2020 05:09 PM
Vinyl acetate	ND		5.0	µg/L	1	2/19/2020 05:09 PM
Vinyl chloride	ND		1.0	µg/L	1	2/19/2020 05:09 PM
Xylenes, Total	ND		3.0	µg/L	1	2/19/2020 05:09 PM
Surr: 1,2-Dichloroethane-d4	*98.3*		*75-120*	*%REC*	1	2/19/2020 05:09 PM
Surr: 4-Bromofluorobenzene	*99.8*		*80-110*	*%REC*	1	2/19/2020 05:09 PM
Surr: Dibromofluoromethane	*102*		*85-115*	*%REC*	1	2/19/2020 05:09 PM
Surr: Toluene-d8	*95.2*		*85-110*	*%REC*	1	2/19/2020 05:09 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: P1
Collection Date: 2/10/2020 05:40 PM

Work Order: 20020850
Lab ID: 20020850-08
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3511 2/18/20 14:09	Analyst: **RM**
Aroclor 1016	ND		0.20	µg/L	1	2/19/2020 02:12 AM
Aroclor 1221	ND		0.20	µg/L	1	2/19/2020 02:12 AM
Aroclor 1232	ND		0.20	µg/L	1	2/19/2020 02:12 AM
Aroclor 1242	ND		0.20	µg/L	1	2/19/2020 02:12 AM
Aroclor 1248	ND		0.20	µg/L	1	2/19/2020 02:12 AM
Aroclor 1254	ND		0.20	µg/L	1	2/19/2020 02:12 AM
Aroclor 1260	ND		0.20	µg/L	1	2/19/2020 02:12 AM
Aroclor 1262	ND		0.20	µg/L	1	2/19/2020 02:12 AM
Aroclor 1268	ND		0.20	µg/L	1	2/19/2020 02:12 AM
Surr: Decachlorobiphenyl	*101*		*30-150*	*%REC*	1	2/19/2020 02:12 AM
Surr: Tetrachloro-m-xylene	*63.0*		*50-150*	*%REC*	1	2/19/2020 02:12 AM
MERCURY BY CVAA			**SW7470A**		Prep: SW7470 2/18/20 12:51	Analyst: **RSH**
Mercury	ND		0.00020	mg/L	1	2/18/2020 04:31 PM
METALS BY ICP-MS			**SW6020B**		Prep: SW3015A 2/18/20 10:00	Analyst: **STP**
Arsenic	ND		0.0050	mg/L	1	2/18/2020 02:24 PM
Barium	**0.015**		**0.0050**	**mg/L**	1	2/18/2020 02:24 PM
Cadmium	ND		0.0020	mg/L	1	2/18/2020 02:24 PM
Chromium	ND		0.0050	mg/L	1	2/18/2020 02:24 PM
Copper	ND		0.0050	mg/L	1	2/18/2020 02:24 PM
Lead	ND		0.0050	mg/L	1	2/18/2020 02:24 PM
Nickel	ND		0.0050	mg/L	1	2/18/2020 02:24 PM
Selenium	ND		0.0050	mg/L	1	2/18/2020 02:24 PM
Silver	ND		0.0050	mg/L	1	2/18/2020 02:24 PM
Thorium	ND		0.0050	mg/L	1	2/18/2020 02:24 PM
Uranium	ND		0.0050	mg/L	1	2/18/2020 02:24 PM
Zinc	**0.014**		**0.010**	**mg/L**	1	2/18/2020 02:24 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**		Prep: SW3511 2/13/20 13:34	Analyst: **EEW**
1-Methylnaphthalene	ND		0.17	µg/L	1	2/16/2020 06:33 AM
2-Chloronaphthalene	ND		0.17	µg/L	1	2/16/2020 06:33 AM
2-Methylnaphthalene	ND		0.17	µg/L	1	2/16/2020 06:33 AM
Acenaphthene	ND		0.17	µg/L	1	2/16/2020 06:33 AM
Acenaphthylene	ND		0.17	µg/L	1	2/16/2020 06:33 AM
Anthracene	ND		0.17	µg/L	1	2/16/2020 06:33 AM
Benzo(a)anthracene	ND		0.17	µg/L	1	2/16/2020 06:33 AM
Benzo(a)pyrene	ND		0.17	µg/L	1	2/16/2020 06:33 AM
Benzo(b)fluoranthene	ND		0.17	µg/L	1	2/16/2020 06:33 AM
Benzo(g,h,i)perylene	ND		0.17	µg/L	1	2/16/2020 06:33 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20020850
Sample ID: P1
Lab ID: 20020850-08
Collection Date: 2/10/2020 05:40 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		0.17	µg/L	1	2/16/2020 06:33 AM
Chrysene	ND		0.17	µg/L	1	2/16/2020 06:33 AM
Dibenzo(a,h)anthracene	ND		0.17	µg/L	1	2/16/2020 06:33 AM
Fluoranthene	ND		0.17	µg/L	1	2/16/2020 06:33 AM
Fluorene	ND		0.17	µg/L	1	2/16/2020 06:33 AM
Indeno(1,2,3-cd)pyrene	ND		0.17	µg/L	1	2/16/2020 06:33 AM
Naphthalene	ND		0.17	µg/L	1	2/16/2020 06:33 AM
Phenanthrene	ND		0.17	µg/L	1	2/16/2020 06:33 AM
Pyrene	ND		0.17	µg/L	1	2/16/2020 06:33 AM
Surr: 2-Fluorobiphenyl	*94.3*		*20-140*	*%REC*	1	2/16/2020 06:33 AM
Surr: 4-Terphenyl-d14	*75.7*		*20-172*	*%REC*	1	2/16/2020 06:33 AM
Surr: Nitrobenzene-d5	*38.6*		*10-140*	*%REC*	1	2/16/2020 06:33 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**			Analyst: **JNS**
1,1,1,2-Tetrachloroethane	ND		1.0	µg/L	1	2/19/2020 05:30 PM
1,1,1-Trichloroethane	ND		1.0	µg/L	1	2/19/2020 05:30 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	2/19/2020 05:30 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	2/19/2020 05:30 PM
1,1,2-Trichlorotrifluoroethane	ND		1.0	µg/L	1	2/19/2020 05:30 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	2/19/2020 05:30 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	2/19/2020 05:30 PM
1,2,3-Trichloropropane	ND		1.0	µg/L	1	2/19/2020 05:30 PM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	2/19/2020 05:30 PM
1,2,4-Trimethylbenzene	ND		1.0	µg/L	1	2/19/2020 05:30 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	2/19/2020 05:30 PM
1,2-Dibromoethane	ND		1.0	µg/L	1	2/19/2020 05:30 PM
1,2-Dichlorobenzene	ND		1.0	µg/L	1	2/19/2020 05:30 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	2/19/2020 05:30 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	2/19/2020 05:30 PM
1,3,5-Trimethylbenzene	ND		1.0	µg/L	1	2/19/2020 05:30 PM
1,3-Dichlorobenzene	ND		1.0	µg/L	1	2/19/2020 05:30 PM
1,4-Dichlorobenzene	ND		1.0	µg/L	1	2/19/2020 05:30 PM
2-Butanone	ND		5.0	µg/L	1	2/19/2020 05:30 PM
2-Hexanone	ND		5.0	µg/L	1	2/19/2020 05:30 PM
2-Methylnaphthalene	ND		5.0	µg/L	1	2/19/2020 05:30 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	2/19/2020 05:30 PM
Acetone	ND		10	µg/L	1	2/19/2020 05:30 PM
Acrylonitrile	ND		1.0	µg/L	1	2/19/2020 05:30 PM
Benzene	ND		1.0	µg/L	1	2/19/2020 05:30 PM
Bromochloromethane	ND		1.0	µg/L	1	2/19/2020 05:30 PM
Bromodichloromethane	ND		1.0	µg/L	1	2/19/2020 05:30 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: P1
Collection Date: 2/10/2020 05:40 PM

Work Order: 20020850
Lab ID: 20020850-08
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		1.0	µg/L	1	2/19/2020 05:30 PM
Bromomethane	ND		1.0	µg/L	1	2/19/2020 05:30 PM
Carbon disulfide	ND		1.0	µg/L	1	2/19/2020 05:30 PM
Carbon tetrachloride	ND		1.0	µg/L	1	2/19/2020 05:30 PM
Chlorobenzene	ND		1.0	µg/L	1	2/19/2020 05:30 PM
Chloroethane	ND		1.0	µg/L	1	2/19/2020 05:30 PM
Chloroform	ND		1.0	µg/L	1	2/19/2020 05:30 PM
Chloromethane	ND		1.0	µg/L	1	2/19/2020 05:30 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	2/19/2020 05:30 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	2/19/2020 05:30 PM
Dibromochloromethane	ND		1.0	µg/L	1	2/19/2020 05:30 PM
Dibromomethane	ND		1.0	µg/L	1	2/19/2020 05:30 PM
Dichlorodifluoromethane	ND		1.0	µg/L	1	2/19/2020 05:30 PM
Diethyl ether	ND		1.0	µg/L	1	2/19/2020 05:30 PM
Ethylbenzene	ND		1.0	µg/L	1	2/19/2020 05:30 PM
Hexachloroethane	ND		1.0	µg/L	1	2/19/2020 05:30 PM
Isopropylbenzene	ND		1.0	µg/L	1	2/19/2020 05:30 PM
m,p-Xylene	ND		2.0	µg/L	1	2/19/2020 05:30 PM
Methyl iodide	ND		5.0	µg/L	1	2/19/2020 05:30 PM
Methyl tert-butyl ether	ND		1.0	µg/L	1	2/19/2020 05:30 PM
Methylene chloride	ND		5.0	µg/L	1	2/19/2020 05:30 PM
Naphthalene	ND		5.0	µg/L	1	2/19/2020 05:30 PM
n-Propylbenzene	ND		1.0	µg/L	1	2/19/2020 05:30 PM
o-Xylene	ND		1.0	µg/L	1	2/19/2020 05:30 PM
Styrene	ND		1.0	µg/L	1	2/19/2020 05:30 PM
Tetrachloroethene	ND		1.0	µg/L	1	2/19/2020 05:30 PM
Toluene	ND		1.0	µg/L	1	2/19/2020 05:30 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	2/19/2020 05:30 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	2/19/2020 05:30 PM
trans-1,4-Dichloro-2-butene	ND		2.0	µg/L	1	2/19/2020 05:30 PM
Trichloroethene	ND		1.0	µg/L	1	2/19/2020 05:30 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	2/19/2020 05:30 PM
Vinyl acetate	ND		5.0	µg/L	1	2/19/2020 05:30 PM
Vinyl chloride	ND		1.0	µg/L	1	2/19/2020 05:30 PM
Xylenes, Total	ND		3.0	µg/L	1	2/19/2020 05:30 PM
Surr: 1,2-Dichloroethane-d4	*100*		*75-120*	*%REC*	1	2/19/2020 05:30 PM
Surr: 4-Bromofluorobenzene	*98.4*		*80-110*	*%REC*	1	2/19/2020 05:30 PM
Surr: Dibromofluoromethane	*106*		*85-115*	*%REC*	1	2/19/2020 05:30 PM
Surr: Toluene-d8	*96.0*		*85-110*	*%REC*	1	2/19/2020 05:30 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-9 0-5'
Collection Date: 2/11/2020 04:00 PM

Work Order: 20020850
Lab ID: 20020850-09
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/14/20 12:27		Analyst: **RM**
Aroclor 1016	ND		400	µg/Kg-dry	1	2/16/2020 07:54 PM
Aroclor 1221	ND		400	µg/Kg-dry	1	2/16/2020 07:54 PM
Aroclor 1232	ND		400	µg/Kg-dry	1	2/16/2020 07:54 PM
Aroclor 1242	ND		400	µg/Kg-dry	1	2/16/2020 07:54 PM
Aroclor 1248	ND		400	µg/Kg-dry	1	2/16/2020 07:54 PM
Aroclor 1254	ND		400	µg/Kg-dry	1	2/16/2020 07:54 PM
Aroclor 1260	ND		400	µg/Kg-dry	1	2/16/2020 07:54 PM
Aroclor 1262	ND		400	µg/Kg-dry	1	2/16/2020 07:54 PM
Aroclor 1268	ND		400	µg/Kg-dry	1	2/16/2020 07:54 PM
Surr: Decachlorobiphenyl	*76.2*		*40-140*	*%REC*	1	2/16/2020 07:54 PM
Surr: Tetrachloro-m-xylene	*71.7*		*45-124*	*%REC*	1	2/16/2020 07:54 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/18/20 13:11		Analyst: **RSH**
Mercury	**0.41**		**0.042**	**mg/Kg-dry**	2	2/19/2020 11:26 AM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/17/20 17:56		Analyst: **DSC**
Arsenic	**8.4**		**0.49**	**mg/Kg-dry**	1	2/18/2020 07:52 PM
Barium	**83**		**0.49**	**mg/Kg-dry**	1	2/18/2020 07:52 PM
Cadmium	**0.59**		**0.19**	**mg/Kg-dry**	1	2/18/2020 07:52 PM
Chromium	**34**		**0.49**	**mg/Kg-dry**	1	2/18/2020 07:52 PM
Copper	**160**		**4.9**	**mg/Kg-dry**	10	2/19/2020 03:34 PM
Lead	**150**		**0.49**	**mg/Kg-dry**	1	2/18/2020 07:52 PM
Nickel	**24**		**0.49**	**mg/Kg-dry**	1	2/18/2020 07:52 PM
Selenium	ND		0.49	mg/Kg-dry	1	2/18/2020 07:52 PM
Silver	ND		0.49	mg/Kg-dry	1	2/18/2020 07:52 PM
Thorium	**2.9**		**0.49**	**mg/Kg-dry**	1	2/18/2020 07:52 PM
Uranium	**1.1**		**0.49**	**mg/Kg-dry**	1	2/18/2020 07:52 PM
Zinc	**180**		**9.7**	**mg/Kg-dry**	10	2/19/2020 03:34 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/19/20 18:03		Analyst: **EEW**
1-Methylnaphthalene	**32,000**		**500**	**µg/Kg-dry**	100	2/20/2020 03:30 PM
2-Chloronaphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 01:16 AM
2-Methylnaphthalene	**76,000**		**500**	**µg/Kg-dry**	100	2/20/2020 03:30 PM
Acenaphthene	**55,000**		**500**	**µg/Kg-dry**	100	2/20/2020 03:30 PM
Acenaphthylene	**4,300**		**5.0**	**µg/Kg-dry**	1	2/20/2020 01:16 AM
Anthracene	**47,000**		**500**	**µg/Kg-dry**	100	2/20/2020 03:30 PM
Benzo(a)anthracene	**20,000**		**500**	**µg/Kg-dry**	100	2/20/2020 03:30 PM
Benzo(a)pyrene	**9,900**		**500**	**µg/Kg-dry**	100	2/20/2020 03:30 PM
Benzo(b)fluoranthene	**13,000**		**500**	**µg/Kg-dry**	100	2/20/2020 03:30 PM
Benzo(g,h,i)perylene	**1,900**		**5.0**	**µg/Kg-dry**	1	2/20/2020 01:16 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-9 0-5'
Collection Date: 2/11/2020 04:00 PM

Work Order: 20020850
Lab ID: 20020850-09
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**2,700**		**5.0**	**µg/Kg-dry**	1	2/20/2020 01:16 AM
Chrysene	**16,000**		**500**	**µg/Kg-dry**	100	2/20/2020 03:30 PM
Dibenzo(a,h)anthracene	**690**		**5.0**	**µg/Kg-dry**	1	2/20/2020 01:16 AM
Fluoranthene	**58,000**		**500**	**µg/Kg-dry**	100	2/20/2020 03:30 PM
Fluorene	**52,000**		**500**	**µg/Kg-dry**	100	2/20/2020 03:30 PM
Indeno(1,2,3-cd)pyrene	**2,900**		**5.0**	**µg/Kg-dry**	1	2/20/2020 01:16 AM
Naphthalene	**210,000**		**500**	**µg/Kg-dry**	100	2/20/2020 03:30 PM
Phenanthrene	**130,000**		**500**	**µg/Kg-dry**	100	2/20/2020 03:30 PM
Pyrene	**43,000**		**500**	**µg/Kg-dry**	100	2/20/2020 03:30 PM
Surr: 2-Fluorobiphenyl	*97.1*		*20-140*	*%REC*	1	2/20/2020 01:16 AM
Surr: 4-Terphenyl-d14	*86.4*		*22-172*	*%REC*	1	2/20/2020 01:16 AM
Surr: Nitrobenzene-d5	*135*		*28-140*	*%REC*	100	2/20/2020 03:30 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/13/20 11:51		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
1,1,1-Trichloroethane	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
1,1,2,2-Tetrachloroethane	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
1,1,2-Trichloroethane	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
1,1,2-Trichlorotrifluoroethane	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
1,1-Dichloroethane	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
1,1-Dichloroethene	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
1,2,3-Trichloropropane	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
1,2,4-Trichlorobenzene	ND		120	µg/Kg-dry	1	2/19/2020 02:17 PM
1,2,4-Trimethylbenzene	**3,300**		**35**	**µg/Kg-dry**	1	2/19/2020 02:17 PM
1,2-Dibromo-3-chloropropane	ND		120	µg/Kg-dry	1	2/19/2020 02:17 PM
1,2-Dibromoethane	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
1,2-Dichlorobenzene	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
1,2-Dichloroethane	ND		120	µg/Kg-dry	1	2/19/2020 02:17 PM
1,2-Dichloropropane	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
1,3,5-Trimethylbenzene	**1,700**		**120**	**µg/Kg-dry**	1	2/19/2020 02:17 PM
1,3-Dichlorobenzene	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
1,4-Dichlorobenzene	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
2-Butanone	ND		230	µg/Kg-dry	1	2/19/2020 02:17 PM
2-Hexanone	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
2-Methylnaphthalene	**56,000**		**1,200**	**µg/Kg-dry**	10	2/20/2020 01:07 PM
4-Methyl-2-pentanone	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
Acetone	ND		120	µg/Kg-dry	1	2/19/2020 02:17 PM
Acrylonitrile	ND		120	µg/Kg-dry	1	2/19/2020 02:17 PM
Benzene	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
Bromochloromethane	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
Bromodichloromethane	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: S-9 0-5' **Lab ID:** 20020850-09
Collection Date: 2/11/2020 04:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
Bromomethane	ND		120	µg/Kg-dry	1	2/19/2020 02:17 PM
Carbon disulfide	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
Carbon tetrachloride	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
Chlorobenzene	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
Chloroethane	ND		120	µg/Kg-dry	1	2/19/2020 02:17 PM
Chloroform	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
Chloromethane	ND		120	µg/Kg-dry	1	2/19/2020 02:17 PM
cis-1,2-Dichloroethene	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
cis-1,3-Dichloropropene	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
Dibromochloromethane	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
Dibromomethane	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
Dichlorodifluoromethane	ND		120	µg/Kg-dry	1	2/19/2020 02:17 PM
Diethyl ether	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
Ethylbenzene	**760**		**35**	**µg/Kg-dry**	1	2/19/2020 02:17 PM
Hexachloroethane	ND		120	µg/Kg-dry	1	2/19/2020 02:17 PM
Isopropylbenzene	**310**		**35**	**µg/Kg-dry**	1	2/19/2020 02:17 PM
m,p-Xylene	**2,000**		**70**	**µg/Kg-dry**	1	2/19/2020 02:17 PM
Methyl iodide	ND		590	µg/Kg-dry	1	2/19/2020 02:17 PM
Methyl tert-butyl ether	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
Methylene chloride	ND		290	µg/Kg-dry	1	2/19/2020 02:17 PM
Naphthalene	**150,000**		**12,000**	**µg/Kg-dry**	100	2/20/2020 01:41 PM
n-Propylbenzene	**81**		**35**	**µg/Kg-dry**	1	2/19/2020 02:17 PM
o-Xylene	**790**		**35**	**µg/Kg-dry**	1	2/19/2020 02:17 PM
Styrene	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
Tetrachloroethene	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
Toluene	**330**		**35**	**µg/Kg-dry**	1	2/19/2020 02:17 PM
trans-1,2-Dichloroethene	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
trans-1,3-Dichloropropene	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
trans-1,4-Dichloro-2-butene	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
Trichloroethene	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
Trichlorofluoromethane	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
Vinyl acetate	ND		290	µg/Kg-dry	1	2/19/2020 02:17 PM
Vinyl chloride	ND		35	µg/Kg-dry	1	2/19/2020 02:17 PM
Xylenes, Total	**2,800**		**110**	**µg/Kg-dry**	1	2/19/2020 02:17 PM
Surr: 1,2-Dichloroethane-d4	*113*		*70-130*	*%REC*	100	2/20/2020 01:41 PM
Surr: 1,2-Dichloroethane-d4	*115*		*70-130*	*%REC*	10	2/20/2020 01:07 PM
Surr: 1,2-Dichloroethane-d4	*105*		*70-130*	*%REC*	1	2/19/2020 02:17 PM
Surr: 4-Bromofluorobenzene	*96.9*		*70-130*	*%REC*	100	2/20/2020 01:41 PM
Surr: 4-Bromofluorobenzene	*115*		*70-130*	*%REC*	1	2/19/2020 02:17 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-9 0-5'
Collection Date: 2/11/2020 04:00 PM

Work Order: 20020850
Lab ID: 20020850-09
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 4-Bromofluorobenzene	*104*		*70-130*	*%REC*	10	2/20/2020 01:07 PM
Surr: Dibromofluoromethane	*94.1*		*70-130*	*%REC*	1	2/19/2020 02:17 PM
Surr: Dibromofluoromethane	*100*		*70-130*	*%REC*	10	2/20/2020 01:07 PM
Surr: Dibromofluoromethane	*103*		*70-130*	*%REC*	100	2/20/2020 01:41 PM
Surr: Toluene-d8	*97.7*		*70-130*	*%REC*	100	2/20/2020 01:41 PM
Surr: Toluene-d8	*100*		*70-130*	*%REC*	1	2/19/2020 02:17 PM
Surr: Toluene-d8	*95.8*		*70-130*	*%REC*	10	2/20/2020 01:07 PM
BIOCHEMICAL OXYGEN DEMAND			**A5210B-11**	Prep: A5210B 2/13/20 14:33		Analyst: **QTN**
Biochemical Oxygen Demand	**0.031**		**0.0061**	**mg/Kg-dry**	1	2/18/2020 10:45 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**19**		**0.10**	**% of sample**	1	2/14/2020 10:18 AM
PHOSPHORUS, TOTAL			**E365.1 R2.0**	Prep: E365.1 R2.0 2/13/20 09:25		Analyst: **CAC**
Phosphorus, Total	**500**		**160**	**mg/Kg-dry**	5	2/13/2020 04:07 PM
PH			**SW9045D**	Prep: EXTRACT 2/13/20 10:29		Analyst: **DNW**
pH	**8.10**		**0.100**	**s.u.**	1	2/13/2020 03:10 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-10 0-5'
Collection Date: 2/11/2020 02:45 PM

Work Order: 20020850
Lab ID: 20020850-10
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/14/20 12:27		Analyst: **RM**
Aroclor 1016	ND		370	µg/Kg-dry	1	2/16/2020 08:09 PM
Aroclor 1221	ND		370	µg/Kg-dry	1	2/16/2020 08:09 PM
Aroclor 1232	ND		370	µg/Kg-dry	1	2/16/2020 08:09 PM
Aroclor 1242	ND		370	µg/Kg-dry	1	2/16/2020 08:09 PM
Aroclor 1248	ND		370	µg/Kg-dry	1	2/16/2020 08:09 PM
Aroclor 1254	ND		370	µg/Kg-dry	1	2/16/2020 08:09 PM
Aroclor 1260	ND		370	µg/Kg-dry	1	2/16/2020 08:09 PM
Aroclor 1262	ND		370	µg/Kg-dry	1	2/16/2020 08:09 PM
Aroclor 1268	ND		370	µg/Kg-dry	1	2/16/2020 08:09 PM
Surr: Decachlorobiphenyl	*77.2*		*40-140*	*%REC*	1	2/16/2020 08:09 PM
Surr: Tetrachloro-m-xylene	*75.4*		*45-124*	*%REC*	1	2/16/2020 08:09 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/18/20 13:11		Analyst: **RSH**
Mercury	**0.26**		**0.021**	**mg/Kg-dry**	1	2/18/2020 06:05 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/17/20 17:56		Analyst: **DSC**
Arsenic	**14**		**0.42**	**mg/Kg-dry**	1	2/18/2020 07:53 PM
Barium	**79**		**0.42**	**mg/Kg-dry**	1	2/18/2020 07:53 PM
Cadmium	**1.3**		**0.17**	**mg/Kg-dry**	1	2/18/2020 07:53 PM
Chromium	**31**		**0.42**	**mg/Kg-dry**	1	2/18/2020 07:53 PM
Copper	**130**		**4.2**	**mg/Kg-dry**	10	2/19/2020 03:35 PM
Lead	**51**		**0.42**	**mg/Kg-dry**	1	2/18/2020 07:53 PM
Nickel	**24**		**0.42**	**mg/Kg-dry**	1	2/18/2020 07:53 PM
Selenium	**0.60**		**0.42**	**mg/Kg-dry**	1	2/18/2020 07:53 PM
Silver	ND		0.42	mg/Kg-dry	1	2/18/2020 07:53 PM
Thorium	**3.2**		**0.42**	**mg/Kg-dry**	1	2/18/2020 07:53 PM
Uranium	**1.5**		**0.42**	**mg/Kg-dry**	1	2/18/2020 07:53 PM
Zinc	**110**		**8.4**	**mg/Kg-dry**	10	2/19/2020 03:35 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/19/20 18:03		Analyst: **EEW**
1-Methylnaphthalene	**380**		**5.1**	**µg/Kg-dry**	1	2/20/2020 01:32 AM
2-Chloronaphthalene	ND		5.1	µg/Kg-dry	1	2/20/2020 01:32 AM
2-Methylnaphthalene	**590**		**5.1**	**µg/Kg-dry**	1	2/20/2020 01:32 AM
Acenaphthene	**1,000**		**5.1**	**µg/Kg-dry**	1	2/20/2020 01:32 AM
Acenaphthylene	**85**		**5.1**	**µg/Kg-dry**	1	2/20/2020 01:32 AM
Anthracene	**800**		**5.1**	**µg/Kg-dry**	1	2/20/2020 01:32 AM
Benzo(a)anthracene	**700**		**5.1**	**µg/Kg-dry**	1	2/20/2020 01:32 AM
Benzo(a)pyrene	**350**		**5.1**	**µg/Kg-dry**	1	2/20/2020 01:32 AM
Benzo(b)fluoranthene	**450**		**5.1**	**µg/Kg-dry**	1	2/20/2020 01:32 AM
Benzo(g,h,i)perylene	**78**		**5.1**	**µg/Kg-dry**	1	2/20/2020 01:32 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: S-10 0-5' **Lab ID:** 20020850-10
Collection Date: 2/11/2020 02:45 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**140**		**5.1**	**µg/Kg-dry**	1	2/20/2020 01:32 AM
Chrysene	**570**		**5.1**	**µg/Kg-dry**	1	2/20/2020 01:32 AM
Dibenzo(a,h)anthracene	**22**		**5.1**	**µg/Kg-dry**	1	2/20/2020 01:32 AM
Fluoranthene	**2,400**		**5.1**	**µg/Kg-dry**	1	2/20/2020 01:32 AM
Fluorene	**1,100**		**5.1**	**µg/Kg-dry**	1	2/20/2020 01:32 AM
Indeno(1,2,3-cd)pyrene	**110**		**5.1**	**µg/Kg-dry**	1	2/20/2020 01:32 AM
Naphthalene	**500**		**5.1**	**µg/Kg-dry**	1	2/20/2020 01:32 AM
Phenanthrene	**2,400**		**5.1**	**µg/Kg-dry**	1	2/20/2020 01:32 AM
Pyrene	**1,500**		**5.1**	**µg/Kg-dry**	1	2/20/2020 01:32 AM
Surr: 2-Fluorobiphenyl	*78.0*		*20-140*	*%REC*	1	2/20/2020 01:32 AM
Surr: 4-Terphenyl-d14	*70.1*		*22-172*	*%REC*	1	2/20/2020 01:32 AM
Surr: Nitrobenzene-d5	*67.7*		*28-140*	*%REC*	1	2/20/2020 01:32 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/13/20 11:51		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
1,1,1-Trichloroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
1,1,2,2-Tetrachloroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
1,1,2-Trichloroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
1,1,2-Trichlorotrifluoroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
1,1-Dichloroethane	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
1,1-Dichloroethene	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
1,2,3-Trichloropropane	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
1,2,4-Trichlorobenzene	ND		140	µg/Kg-dry	1	2/20/2020 12:17 PM
1,2,4-Trimethylbenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
1,2-Dibromo-3-chloropropane	ND		140	µg/Kg-dry	1	2/20/2020 12:17 PM
1,2-Dibromoethane	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
1,2-Dichlorobenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
1,2-Dichloroethane	ND		140	µg/Kg-dry	1	2/20/2020 12:17 PM
1,2-Dichloropropane	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
1,3,5-Trimethylbenzene	ND		140	µg/Kg-dry	1	2/20/2020 12:17 PM
1,3-Dichlorobenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
1,4-Dichlorobenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
2-Butanone	ND		270	µg/Kg-dry	1	2/20/2020 12:17 PM
2-Hexanone	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
2-Methylnaphthalene	ND		140	µg/Kg-dry	1	2/20/2020 12:17 PM
4-Methyl-2-pentanone	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
Acetone	ND		140	µg/Kg-dry	1	2/20/2020 12:17 PM
Acrylonitrile	ND		140	µg/Kg-dry	1	2/20/2020 12:17 PM
Benzene	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
Bromochloromethane	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
Bromodichloromethane	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: S-10 0-5' **Lab ID:** 20020850-10
Collection Date: 2/11/2020 02:45 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
Bromomethane	ND		140	µg/Kg-dry	1	2/20/2020 12:17 PM
Carbon disulfide	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
Carbon tetrachloride	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
Chlorobenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
Chloroethane	ND		140	µg/Kg-dry	1	2/20/2020 12:17 PM
Chloroform	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
Chloromethane	ND		140	µg/Kg-dry	1	2/20/2020 12:17 PM
cis-1,2-Dichloroethene	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
cis-1,3-Dichloropropene	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
Dibromochloromethane	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
Dibromomethane	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
Dichlorodifluoromethane	ND		140	µg/Kg-dry	1	2/20/2020 12:17 PM
Diethyl ether	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
Ethylbenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
Hexachloroethane	ND		140	µg/Kg-dry	1	2/20/2020 12:17 PM
Isopropylbenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
m,p-Xylene	ND		81	µg/Kg-dry	1	2/20/2020 12:17 PM
Methyl iodide	ND		680	µg/Kg-dry	1	2/20/2020 12:17 PM
Methyl tert-butyl ether	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
Methylene chloride	ND		340	µg/Kg-dry	1	2/20/2020 12:17 PM
Naphthalene	**210**		**140**	**µg/Kg-dry**	1	2/20/2020 12:17 PM
n-Propylbenzene	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
o-Xylene	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
Styrene	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
Tetrachloroethene	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
Toluene	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
trans-1,2-Dichloroethene	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
trans-1,3-Dichloropropene	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
trans-1,4-Dichloro-2-butene	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
Trichloroethene	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
Trichlorofluoromethane	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
Vinyl acetate	ND		340	µg/Kg-dry	1	2/20/2020 12:17 PM
Vinyl chloride	ND		41	µg/Kg-dry	1	2/20/2020 12:17 PM
Xylenes, Total	ND		120	µg/Kg-dry	1	2/20/2020 12:17 PM
Surr: 1,2-Dichloroethane-d4	*113*		*70-130*	*%REC*	1	2/20/2020 12:17 PM
Surr: 4-Bromofluorobenzene	*104*		*70-130*	*%REC*	1	2/20/2020 12:17 PM
Surr: Dibromofluoromethane	*94.2*		*70-130*	*%REC*	1	2/20/2020 12:17 PM
Surr: Toluene-d8	*101*		*70-130*	*%REC*	1	2/20/2020 12:17 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/13/20 14:38 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20020850
Sample ID: S-10 0-5'
Lab ID: 20020850-10
Collection Date: 2/11/2020 02:45 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**0.0091**		**0.0061**	**mg/Kg-dry**	1	2/18/2020 10:45 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**19**		**0.10**	**% of sample**	1	2/14/2020 10:18 AM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/13/20 09:25	Analyst: **CAC**
Phosphorus, Total	**310**		**120**	**mg/Kg-dry**	5	2/13/2020 04:08 PM
PH			**SW9045D**		Prep: EXTRACT 2/13/20 10:29	Analyst: **DNW**
pH	**8.83**		**0.100**	**s.u.**	1	2/13/2020 03:10 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-1 4-5'
Collection Date: 2/12/2020 11:40 AM

Work Order: 20020850
Lab ID: 20020850-11
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/14/20 12:27		Analyst: **RM**
Aroclor 1016	ND		370	µg/Kg-dry	1	2/16/2020 08:24 PM
Aroclor 1221	ND		370	µg/Kg-dry	1	2/16/2020 08:24 PM
Aroclor 1232	ND		370	µg/Kg-dry	1	2/16/2020 08:24 PM
Aroclor 1242	ND		370	µg/Kg-dry	1	2/16/2020 08:24 PM
Aroclor 1248	ND		370	µg/Kg-dry	1	2/16/2020 08:24 PM
Aroclor 1254	ND		370	µg/Kg-dry	1	2/16/2020 08:24 PM
Aroclor 1260	ND		370	µg/Kg-dry	1	2/16/2020 08:24 PM
Aroclor 1262	ND		370	µg/Kg-dry	1	2/16/2020 08:24 PM
Aroclor 1268	ND		370	µg/Kg-dry	1	2/16/2020 08:24 PM
Surr: Decachlorobiphenyl	*67.2*		*40-140*	*%REC*	1	2/16/2020 08:24 PM
Surr: Tetrachloro-m-xylene	*70.3*		*45-124*	*%REC*	1	2/16/2020 08:24 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/18/20 13:11		Analyst: **RSH**
Mercury	**0.038**		**0.019**	**mg/Kg-dry**	1	2/18/2020 06:07 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/17/20 17:56		Analyst: **DSC**
Arsenic	**6.8**		**0.49**	**mg/Kg-dry**	1	2/18/2020 07:55 PM
Barium	**68**		**0.49**	**mg/Kg-dry**	1	2/18/2020 07:55 PM
Cadmium	**0.51**		**0.20**	**mg/Kg-dry**	1	2/18/2020 07:55 PM
Chromium	**22**		**0.49**	**mg/Kg-dry**	1	2/18/2020 07:55 PM
Copper	**290**		**49**	**mg/Kg-dry**	100	2/19/2020 03:43 PM
Lead	**67**		**0.49**	**mg/Kg-dry**	1	2/18/2020 07:55 PM
Nickel	**21**		**0.49**	**mg/Kg-dry**	1	2/18/2020 07:55 PM
Selenium	ND		0.49	mg/Kg-dry	1	2/18/2020 07:55 PM
Silver	ND		0.49	mg/Kg-dry	1	2/18/2020 07:55 PM
Thorium	**3.5**		**0.49**	**mg/Kg-dry**	1	2/18/2020 07:55 PM
Uranium	**1.3**		**0.49**	**mg/Kg-dry**	1	2/18/2020 07:55 PM
Zinc	**290**		**98**	**mg/Kg-dry**	100	2/19/2020 03:43 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/19/20 18:03		Analyst: **EEW**
1-Methylnaphthalene	**37**		**5.0**	**µg/Kg-dry**	1	2/20/2020 01:47 AM
2-Chloronaphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 01:47 AM
2-Methylnaphthalene	**54**		**5.0**	**µg/Kg-dry**	1	2/20/2020 01:47 AM
Acenaphthene	**370**		**5.0**	**µg/Kg-dry**	1	2/20/2020 01:47 AM
Acenaphthylene	**130**		**5.0**	**µg/Kg-dry**	1	2/20/2020 01:47 AM
Anthracene	**3,100**		**5.0**	**µg/Kg-dry**	1	2/20/2020 01:47 AM
Benzo(a)anthracene	**1,800**		**5.0**	**µg/Kg-dry**	1	2/20/2020 01:47 AM
Benzo(a)pyrene	**1,200**		**5.0**	**µg/Kg-dry**	1	2/20/2020 01:47 AM
Benzo(b)fluoranthene	**1,600**		**5.0**	**µg/Kg-dry**	1	2/20/2020 01:47 AM
Benzo(g,h,i)perylene	**380**		**5.0**	**µg/Kg-dry**	1	2/20/2020 01:47 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: S-1 4-5' **Lab ID:** 20020850-11
Collection Date: 2/12/2020 11:40 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**470**		**5.0**	**µg/Kg-dry**	1	2/20/2020 01:47 AM
Chrysene	**1,500**		**5.0**	**µg/Kg-dry**	1	2/20/2020 01:47 AM
Dibenzo(a,h)anthracene	**71**		**5.0**	**µg/Kg-dry**	1	2/20/2020 01:47 AM
Fluoranthene	**7,900**		**5.0**	**µg/Kg-dry**	1	2/20/2020 01:47 AM
Fluorene	**570**		**5.0**	**µg/Kg-dry**	1	2/20/2020 01:47 AM
Indeno(1,2,3-cd)pyrene	**580**		**5.0**	**µg/Kg-dry**	1	2/20/2020 01:47 AM
Naphthalene	**200**		**5.0**	**µg/Kg-dry**	1	2/20/2020 01:47 AM
Phenanthrene	**6,100**		**5.0**	**µg/Kg-dry**	1	2/20/2020 01:47 AM
Pyrene	**4,000**		**5.0**	**µg/Kg-dry**	1	2/20/2020 01:47 AM
Surr: 2-Fluorobiphenyl	*90.2*		*20-140*	*%REC*	1	2/20/2020 01:47 AM
Surr: 4-Terphenyl-d14	*80.8*		*22-172*	*%REC*	1	2/20/2020 01:47 AM
Surr: Nitrobenzene-d5	*82.4*		*28-140*	*%REC*	1	2/20/2020 01:47 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/13/20 11:51		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
1,1,1-Trichloroethane	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
1,1,2,2-Tetrachloroethane	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
1,1,2-Trichloroethane	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
1,1,2-Trichlorotrifluoroethane	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
1,1-Dichloroethane	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
1,1-Dichloroethene	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
1,2,3-Trichloropropane	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
1,2,4-Trichlorobenzene	ND		120	µg/Kg-dry	1	2/20/2020 12:50 PM
1,2,4-Trimethylbenzene	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
1,2-Dibromo-3-chloropropane	ND		120	µg/Kg-dry	1	2/20/2020 12:50 PM
1,2-Dibromoethane	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
1,2-Dichlorobenzene	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
1,2-Dichloroethane	ND		120	µg/Kg-dry	1	2/20/2020 12:50 PM
1,2-Dichloropropane	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
1,3,5-Trimethylbenzene	ND		120	µg/Kg-dry	1	2/20/2020 12:50 PM
1,3-Dichlorobenzene	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
1,4-Dichlorobenzene	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
2-Butanone	ND		240	µg/Kg-dry	1	2/20/2020 12:50 PM
2-Hexanone	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
2-Methylnaphthalene	ND		120	µg/Kg-dry	1	2/20/2020 12:50 PM
4-Methyl-2-pentanone	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
Acetone	ND		120	µg/Kg-dry	1	2/20/2020 12:50 PM
Acrylonitrile	ND		120	µg/Kg-dry	1	2/20/2020 12:50 PM
Benzene	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
Bromochloromethane	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
Bromodichloromethane	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-1 4-5'
Collection Date: 2/12/2020 11:40 AM

Work Order: 20020850
Lab ID: 20020850-11
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
Bromomethane	ND		120	µg/Kg-dry	1	2/20/2020 12:50 PM
Carbon disulfide	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
Carbon tetrachloride	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
Chlorobenzene	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
Chloroethane	ND		120	µg/Kg-dry	1	2/20/2020 12:50 PM
Chloroform	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
Chloromethane	ND		120	µg/Kg-dry	1	2/20/2020 12:50 PM
cis-1,2-Dichloroethene	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
cis-1,3-Dichloropropene	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
Dibromochloromethane	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
Dibromomethane	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
Dichlorodifluoromethane	ND		120	µg/Kg-dry	1	2/20/2020 12:50 PM
Diethyl ether	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
Ethylbenzene	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
Hexachloroethane	ND		120	µg/Kg-dry	1	2/20/2020 12:50 PM
Isopropylbenzene	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
m,p-Xylene	ND		71	µg/Kg-dry	1	2/20/2020 12:50 PM
Methyl iodide	ND		590	µg/Kg-dry	1	2/20/2020 12:50 PM
Methyl tert-butyl ether	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
Methylene chloride	ND		290	µg/Kg-dry	1	2/20/2020 12:50 PM
Naphthalene	ND		120	µg/Kg-dry	1	2/20/2020 12:50 PM
n-Propylbenzene	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
o-Xylene	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
Styrene	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
Tetrachloroethene	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
Toluene	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
trans-1,2-Dichloroethene	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
trans-1,3-Dichloropropene	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
trans-1,4-Dichloro-2-butene	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
Trichloroethene	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
Trichlorofluoromethane	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
Vinyl acetate	ND		290	µg/Kg-dry	1	2/20/2020 12:50 PM
Vinyl chloride	ND		35	µg/Kg-dry	1	2/20/2020 12:50 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	2/20/2020 12:50 PM
Surr: 1,2-Dichloroethane-d4	*110*		*70-130*	*%REC*	1	2/20/2020 12:50 PM
Surr: 4-Bromofluorobenzene	*99.2*		*70-130*	*%REC*	1	2/20/2020 12:50 PM
Surr: Dibromofluoromethane	*95.2*		*70-130*	*%REC*	1	2/20/2020 12:50 PM
Surr: Toluene-d8	*96.9*		*70-130*	*%REC*	1	2/20/2020 12:50 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/13/20 12:52 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20020850
Sample ID: S-1 4-5'
Lab ID: 20020850-11
Collection Date: 2/12/2020 11:40 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor		Date Analyzed
Biochemical Oxygen Demand	**0.0080**		**0.0062**	**mg/Kg-dry**	1		2/18/2020 10:45 AM
MOISTURE			**SW3550C**				Analyst: **KTP**
Moisture	**20**		**0.10**	**% of sample**	1		2/14/2020 10:18 AM
PHOSPHORUS, TOTAL			**E365.1 R2.0**			Prep: E365.1 R2.0 2/13/20 09:25	Analyst: **CAC**
Phosphorus, Total	**270**		**110**	**mg/Kg-dry**	5		2/13/2020 04:09 PM
PH			**SW9045D**			Prep: EXTRACT 2/13/20 10:29	Analyst: **DNW**
pH	**8.63**		**0.100**	**s.u.**	1		2/13/2020 03:10 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-1 5-10'
Collection Date: 2/12/2020 11:45 AM

Work Order: 20020850
Lab ID: 20020850-12
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/14/20 12:27		Analyst: **RM**
Aroclor 1016	ND		270	µg/Kg-dry	1	2/16/2020 08:40 PM
Aroclor 1221	ND		270	µg/Kg-dry	1	2/16/2020 08:40 PM
Aroclor 1232	ND		270	µg/Kg-dry	1	2/16/2020 08:40 PM
Aroclor 1242	ND		270	µg/Kg-dry	1	2/16/2020 08:40 PM
Aroclor 1248	ND		270	µg/Kg-dry	1	2/16/2020 08:40 PM
Aroclor 1254	ND		270	µg/Kg-dry	1	2/16/2020 08:40 PM
Aroclor 1260	ND		270	µg/Kg-dry	1	2/16/2020 08:40 PM
Aroclor 1262	ND		270	µg/Kg-dry	1	2/16/2020 08:40 PM
Aroclor 1268	ND		270	µg/Kg-dry	1	2/16/2020 08:40 PM
Surr: Decachlorobiphenyl	*72.6*		*40-140*	*%REC*	1	2/16/2020 08:40 PM
Surr: Tetrachloro-m-xylene	*75.1*		*45-124*	*%REC*	1	2/16/2020 08:40 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/18/20 13:11		Analyst: **RSH**
Mercury	ND		0.021	mg/Kg-dry	1	2/18/2020 06:09 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/17/20 17:56		Analyst: **DSC**
Arsenic	**5.8**		**0.43**	**mg/Kg-dry**	1	2/18/2020 07:57 PM
Barium	**36**		**0.43**	**mg/Kg-dry**	1	2/18/2020 07:57 PM
Cadmium	ND		0.17	mg/Kg-dry	1	2/18/2020 07:57 PM
Chromium	**10**		**0.43**	**mg/Kg-dry**	1	2/18/2020 07:57 PM
Copper	**13**		**0.43**	**mg/Kg-dry**	1	2/18/2020 07:57 PM
Lead	**6.9**		**0.43**	**mg/Kg-dry**	1	2/18/2020 07:57 PM
Nickel	**17**		**0.43**	**mg/Kg-dry**	1	2/18/2020 07:57 PM
Selenium	ND		0.43	mg/Kg-dry	1	2/18/2020 07:57 PM
Silver	ND		0.43	mg/Kg-dry	1	2/18/2020 07:57 PM
Thorium	**3.1**		**0.43**	**mg/Kg-dry**	1	2/18/2020 07:57 PM
Uranium	**1.2**		**0.43**	**mg/Kg-dry**	1	2/18/2020 07:57 PM
Zinc	**46**		**8.6**	**mg/Kg-dry**	10	2/19/2020 03:45 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/19/20 18:03		Analyst: **EEW**
1-Methylnaphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 02:03 AM
2-Chloronaphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 02:03 AM
2-Methylnaphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 02:03 AM
Acenaphthene	ND		5.0	µg/Kg-dry	1	2/20/2020 02:03 AM
Acenaphthylene	ND		5.0	µg/Kg-dry	1	2/20/2020 02:03 AM
Anthracene	**6.6**		**5.0**	**µg/Kg-dry**	1	2/20/2020 02:03 AM
Benzo(a)anthracene	ND		5.0	µg/Kg-dry	1	2/20/2020 02:03 AM
Benzo(a)pyrene	ND		5.0	µg/Kg-dry	1	2/20/2020 02:03 AM
Benzo(b)fluoranthene	ND		5.0	µg/Kg-dry	1	2/20/2020 02:03 AM
Benzo(g,h,i)perylene	ND		5.0	µg/Kg-dry	1	2/20/2020 02:03 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: S-1 5-10' **Lab ID:** 20020850-12
Collection Date: 2/12/2020 11:45 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.0	µg/Kg-dry	1	2/20/2020 02:03 AM
Chrysene	ND		5.0	µg/Kg-dry	1	2/20/2020 02:03 AM
Dibenzo(a,h)anthracene	ND		5.0	µg/Kg-dry	1	2/20/2020 02:03 AM
Fluoranthene	**8.0**		**5.0**	**µg/Kg-dry**	1	2/20/2020 02:03 AM
Fluorene	ND		5.0	µg/Kg-dry	1	2/20/2020 02:03 AM
Indeno(1,2,3-cd)pyrene	ND		5.0	µg/Kg-dry	1	2/20/2020 02:03 AM
Naphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 02:03 AM
Phenanthrene	**11**		**5.0**	**µg/Kg-dry**	1	2/20/2020 02:03 AM
Pyrene	ND		5.0	µg/Kg-dry	1	2/20/2020 02:03 AM
Surr: 2-Fluorobiphenyl	*88.4*		*20-140*	*%REC*	1	2/20/2020 02:03 AM
Surr: 4-Terphenyl-d14	*83.1*		*22-172*	*%REC*	1	2/20/2020 02:03 AM
Surr: Nitrobenzene-d5	*72.8*		*28-140*	*%REC*	1	2/20/2020 02:03 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/13/20 11:51		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
1,1,1-Trichloroethane	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
1,1,2,2-Tetrachloroethane	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
1,1,2-Trichloroethane	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
1,1,2-Trichlorotrifluoroethane	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
1,1-Dichloroethane	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
1,1-Dichloroethene	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
1,2,3-Trichloropropane	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
1,2,4-Trichlorobenzene	ND		120	µg/Kg-dry	1	2/20/2020 12:34 PM
1,2,4-Trimethylbenzene	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
1,2-Dibromo-3-chloropropane	ND		120	µg/Kg-dry	1	2/20/2020 12:34 PM
1,2-Dibromoethane	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
1,2-Dichlorobenzene	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
1,2-Dichloroethane	ND		120	µg/Kg-dry	1	2/20/2020 12:34 PM
1,2-Dichloropropane	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
1,3,5-Trimethylbenzene	ND		120	µg/Kg-dry	1	2/20/2020 12:34 PM
1,3-Dichlorobenzene	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
1,4-Dichlorobenzene	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
2-Butanone	ND		240	µg/Kg-dry	1	2/20/2020 12:34 PM
2-Hexanone	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
2-Methylnaphthalene	ND		120	µg/Kg-dry	1	2/20/2020 12:34 PM
4-Methyl-2-pentanone	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
Acetone	ND		120	µg/Kg-dry	1	2/20/2020 12:34 PM
Acrylonitrile	ND		120	µg/Kg-dry	1	2/20/2020 12:34 PM
Benzene	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
Bromochloromethane	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
Bromodichloromethane	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-1 5-10'
Collection Date: 2/12/2020 11:45 AM

Work Order: 20020850
Lab ID: 20020850-12
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
Bromomethane	ND		120	µg/Kg-dry	1	2/20/2020 12:34 PM
Carbon disulfide	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
Carbon tetrachloride	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
Chlorobenzene	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
Chloroethane	ND		120	µg/Kg-dry	1	2/20/2020 12:34 PM
Chloroform	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
Chloromethane	ND		120	µg/Kg-dry	1	2/20/2020 12:34 PM
cis-1,2-Dichloroethene	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
cis-1,3-Dichloropropene	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
Dibromochloromethane	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
Dibromomethane	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
Dichlorodifluoromethane	ND		120	µg/Kg-dry	1	2/20/2020 12:34 PM
Diethyl ether	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
Ethylbenzene	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
Hexachloroethane	ND		120	µg/Kg-dry	1	2/20/2020 12:34 PM
Isopropylbenzene	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
m,p-Xylene	ND		72	µg/Kg-dry	1	2/20/2020 12:34 PM
Methyl iodide	ND		600	µg/Kg-dry	1	2/20/2020 12:34 PM
Methyl tert-butyl ether	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
Methylene chloride	ND		300	µg/Kg-dry	1	2/20/2020 12:34 PM
Naphthalene	ND		120	µg/Kg-dry	1	2/20/2020 12:34 PM
n-Propylbenzene	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
o-Xylene	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
Styrene	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
Tetrachloroethene	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
Toluene	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
trans-1,2-Dichloroethene	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
trans-1,3-Dichloropropene	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
trans-1,4-Dichloro-2-butene	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
Trichloroethene	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
Trichlorofluoromethane	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
Vinyl acetate	ND		300	µg/Kg-dry	1	2/20/2020 12:34 PM
Vinyl chloride	ND		36	µg/Kg-dry	1	2/20/2020 12:34 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	2/20/2020 12:34 PM
Surr: 1,2-Dichloroethane-d4	*113*		*70-130*	*%REC*	1	2/20/2020 12:34 PM
Surr: 4-Bromofluorobenzene	*100*		*70-130*	*%REC*	1	2/20/2020 12:34 PM
Surr: Dibromofluoromethane	*96.2*		*70-130*	*%REC*	1	2/20/2020 12:34 PM
Surr: Toluene-d8	*101*		*70-130*	*%REC*	1	2/20/2020 12:34 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/13/20 12:59 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20020850
Sample ID: S-1 5-10'
Lab ID: 20020850-12
Collection Date: 2/12/2020 11:45 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**0.0067**		**0.0060**	**mg/Kg-dry**	1	2/18/2020 10:45 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**17**		**0.10**	**% of sample**	1	2/14/2020 10:18 AM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/13/20 09:25	Analyst: **CAC**
Phosphorus, Total	**320**		**110**	**mg/Kg-dry**	5	2/13/2020 04:10 PM
PH			**SW9045D**		Prep: EXTRACT 2/13/20 10:29	Analyst: **DNW**
pH	**8.65**		**0.100**	**s.u.**	1	2/13/2020 03:10 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-8 2-3'
Collection Date: 2/12/2020 01:00 PM

Work Order: 20020850
Lab ID: 20020850-13
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/14/20 12:27		Analyst: **RM**
Aroclor 1016	ND		430	µg/Kg-dry	1	2/16/2020 08:55 PM
Aroclor 1221	ND		430	µg/Kg-dry	1	2/16/2020 08:55 PM
Aroclor 1232	ND		430	µg/Kg-dry	1	2/16/2020 08:55 PM
Aroclor 1242	ND		430	µg/Kg-dry	1	2/16/2020 08:55 PM
Aroclor 1248	ND		430	µg/Kg-dry	1	2/16/2020 08:55 PM
Aroclor 1254	ND		430	µg/Kg-dry	1	2/16/2020 08:55 PM
Aroclor 1260	ND		430	µg/Kg-dry	1	2/16/2020 08:55 PM
Aroclor 1262	ND		430	µg/Kg-dry	1	2/16/2020 08:55 PM
Aroclor 1268	ND		430	µg/Kg-dry	1	2/16/2020 08:55 PM
Surr: Decachlorobiphenyl	*60.7*		*40-140*	*%REC*	1	2/16/2020 08:55 PM
Surr: Tetrachloro-m-xylene	*66.2*		*45-124*	*%REC*	1	2/16/2020 08:55 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/18/20 13:11		Analyst: **RSH**
Mercury	**0.063**		**0.022**	**mg/Kg-dry**	1	2/18/2020 06:11 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/17/20 17:56		Analyst: **DSC**
Arsenic	**4.0**		**0.40**	**mg/Kg-dry**	1	2/18/2020 07:59 PM
Barium	**45**		**0.40**	**mg/Kg-dry**	1	2/18/2020 07:59 PM
Cadmium	ND		0.16	mg/Kg-dry	1	2/18/2020 07:59 PM
Chromium	**11**		**0.40**	**mg/Kg-dry**	1	2/18/2020 07:59 PM
Copper	**46**		**4.0**	**mg/Kg-dry**	10	2/19/2020 03:46 PM
Lead	**78**		**0.40**	**mg/Kg-dry**	1	2/18/2020 07:59 PM
Nickel	**14**		**0.40**	**mg/Kg-dry**	1	2/18/2020 07:59 PM
Selenium	ND		0.40	mg/Kg-dry	1	2/18/2020 07:59 PM
Silver	ND		0.40	mg/Kg-dry	1	2/18/2020 07:59 PM
Thorium	**2.6**		**0.40**	**mg/Kg-dry**	1	2/18/2020 07:59 PM
Uranium	**0.71**		**0.40**	**mg/Kg-dry**	1	2/18/2020 07:59 PM
Zinc	**62**		**8.1**	**mg/Kg-dry**	10	2/19/2020 03:46 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/19/20 18:03		Analyst: **EEW**
1-Methylnaphthalene	**12**		**5.2**	**µg/Kg-dry**	1	2/20/2020 02:18 AM
2-Chloronaphthalene	ND		5.2	µg/Kg-dry	1	2/20/2020 02:18 AM
2-Methylnaphthalene	**11**		**5.2**	**µg/Kg-dry**	1	2/20/2020 02:18 AM
Acenaphthene	**170**		**5.2**	**µg/Kg-dry**	1	2/20/2020 02:18 AM
Acenaphthylene	**130**		**5.2**	**µg/Kg-dry**	1	2/20/2020 02:18 AM
Anthracene	**210**		**5.2**	**µg/Kg-dry**	1	2/20/2020 02:18 AM
Benzo(a)anthracene	**880**		**5.2**	**µg/Kg-dry**	1	2/20/2020 02:18 AM
Benzo(a)pyrene	**610**		**5.2**	**µg/Kg-dry**	1	2/20/2020 02:18 AM
Benzo(b)fluoranthene	**600**		**5.2**	**µg/Kg-dry**	1	2/20/2020 02:18 AM
Benzo(g,h,i)perylene	**140**		**5.2**	**µg/Kg-dry**	1	2/20/2020 02:18 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: S-8 2-3' **Lab ID:** 20020850-13
Collection Date: 2/12/2020 01:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**180**		**5.2**	**µg/Kg-dry**	1	2/20/2020 02:18 AM
Chrysene	**760**		**5.2**	**µg/Kg-dry**	1	2/20/2020 02:18 AM
Dibenzo(a,h)anthracene	**34**		**5.2**	**µg/Kg-dry**	1	2/20/2020 02:18 AM
Fluoranthene	**1,200**		**5.2**	**µg/Kg-dry**	1	2/20/2020 02:18 AM
Fluorene	**160**		**5.2**	**µg/Kg-dry**	1	2/20/2020 02:18 AM
Indeno(1,2,3-cd)pyrene	**190**		**5.2**	**µg/Kg-dry**	1	2/20/2020 02:18 AM
Naphthalene	ND		5.2	µg/Kg-dry	1	2/20/2020 02:18 AM
Phenanthrene	**180**		**5.2**	**µg/Kg-dry**	1	2/20/2020 02:18 AM
Pyrene	**1,100**		**5.2**	**µg/Kg-dry**	1	2/20/2020 02:18 AM
Surr: 2-Fluorobiphenyl	*93.7*		*20-140*	*%REC*	1	2/20/2020 02:18 AM
Surr: 4-Terphenyl-d14	*88.2*		*22-172*	*%REC*	1	2/20/2020 02:18 AM
Surr: Nitrobenzene-d5	*83.8*		*28-140*	*%REC*	1	2/20/2020 02:18 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/13/20 11:51		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
1,1,1-Trichloroethane	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
1,1,2,2-Tetrachloroethane	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
1,1,2-Trichloroethane	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
1,1,2-Trichlorotrifluoroethane	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
1,1-Dichloroethane	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
1,1-Dichloroethene	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
1,2,3-Trichloropropane	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
1,2,4-Trichlorobenzene	ND		150	µg/Kg-dry	1	2/19/2020 03:24 PM
1,2,4-Trimethylbenzene	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
1,2-Dibromo-3-chloropropane	ND		150	µg/Kg-dry	1	2/19/2020 03:24 PM
1,2-Dibromoethane	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
1,2-Dichlorobenzene	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
1,2-Dichloroethane	ND		150	µg/Kg-dry	1	2/19/2020 03:24 PM
1,2-Dichloropropane	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
1,3,5-Trimethylbenzene	ND		150	µg/Kg-dry	1	2/19/2020 03:24 PM
1,3-Dichlorobenzene	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
1,4-Dichlorobenzene	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
2-Butanone	ND		300	µg/Kg-dry	1	2/19/2020 03:24 PM
2-Hexanone	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
2-Methylnaphthalene	ND		150	µg/Kg-dry	1	2/19/2020 03:24 PM
4-Methyl-2-pentanone	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
Acetone	ND		150	µg/Kg-dry	1	2/19/2020 03:24 PM
Acrylonitrile	ND		150	µg/Kg-dry	1	2/19/2020 03:24 PM
Benzene	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
Bromochloromethane	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
Bromodichloromethane	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-8 2-3'
Collection Date: 2/12/2020 01:00 PM

Work Order: 20020850
Lab ID: 20020850-13
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
Bromomethane	ND		150	µg/Kg-dry	1	2/19/2020 03:24 PM
Carbon disulfide	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
Carbon tetrachloride	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
Chlorobenzene	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
Chloroethane	ND		150	µg/Kg-dry	1	2/19/2020 03:24 PM
Chloroform	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
Chloromethane	ND		150	µg/Kg-dry	1	2/19/2020 03:24 PM
cis-1,2-Dichloroethene	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
cis-1,3-Dichloropropene	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
Dibromochloromethane	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
Dibromomethane	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
Dichlorodifluoromethane	ND		150	µg/Kg-dry	1	2/19/2020 03:24 PM
Diethyl ether	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
Ethylbenzene	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
Hexachloroethane	ND		150	µg/Kg-dry	1	2/19/2020 03:24 PM
Isopropylbenzene	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
m,p-Xylene	ND		91	µg/Kg-dry	1	2/19/2020 03:24 PM
Methyl iodide	ND		760	µg/Kg-dry	1	2/19/2020 03:24 PM
Methyl tert-butyl ether	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
Methylene chloride	ND		380	µg/Kg-dry	1	2/19/2020 03:24 PM
Naphthalene	ND		150	µg/Kg-dry	1	2/19/2020 03:24 PM
n-Propylbenzene	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
o-Xylene	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
Styrene	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
Tetrachloroethene	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
Toluene	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
trans-1,2-Dichloroethene	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
trans-1,3-Dichloropropene	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
trans-1,4-Dichloro-2-butene	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
Trichloroethene	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
Trichlorofluoromethane	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
Vinyl acetate	ND		380	µg/Kg-dry	1	2/19/2020 03:24 PM
Vinyl chloride	ND		45	µg/Kg-dry	1	2/19/2020 03:24 PM
Xylenes, Total	ND		140	µg/Kg-dry	1	2/19/2020 03:24 PM
Surr: 1,2-Dichloroethane-d4	*106*		*70-130*	*%REC*	1	2/19/2020 03:24 PM
Surr: 4-Bromofluorobenzene	*105*		*70-130*	*%REC*	1	2/19/2020 03:24 PM
Surr: Dibromofluoromethane	*107*		*70-130*	*%REC*	1	2/19/2020 03:24 PM
Surr: Toluene-d8	*98.2*		*70-130*	*%REC*	1	2/19/2020 03:24 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/13/20 12:59 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20020850
Sample ID: S-8 2-3'
Lab ID: 20020850-13
Collection Date: 2/12/2020 01:00 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**0.0074**		**0.0063**	**mg/Kg-dry**	1	2/18/2020 10:45 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**21**		**0.10**	**% of sample**	1	2/14/2020 10:18 AM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/13/20 09:25	Analyst: **CAC**
Phosphorus, Total	**630**		**270**	**mg/Kg-dry**	10	2/13/2020 04:13 PM
PH			**SW9045D**		Prep: EXTRACT 2/13/20 10:29	Analyst: **DNW**
pH	**8.62**		**0.100**	**s.u.**	1	2/13/2020 03:10 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-8 3-8'
Collection Date: 2/12/2020 01:05 PM

Work Order: 20020850
Lab ID: 20020850-14
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/14/20 12:27		Analyst: **RM**
Aroclor 1016	ND		410	µg/Kg-dry	1	2/16/2020 09:10 PM
Aroclor 1221	ND		410	µg/Kg-dry	1	2/16/2020 09:10 PM
Aroclor 1232	ND		410	µg/Kg-dry	1	2/16/2020 09:10 PM
Aroclor 1242	ND		410	µg/Kg-dry	1	2/16/2020 09:10 PM
Aroclor 1248	ND		410	µg/Kg-dry	1	2/16/2020 09:10 PM
Aroclor 1254	ND		410	µg/Kg-dry	1	2/16/2020 09:10 PM
Aroclor 1260	ND		410	µg/Kg-dry	1	2/16/2020 09:10 PM
Aroclor 1262	ND		410	µg/Kg-dry	1	2/16/2020 09:10 PM
Aroclor 1268	ND		410	µg/Kg-dry	1	2/16/2020 09:10 PM
Surr: Decachlorobiphenyl	*79.5*		*40-140*	*%REC*	1	2/16/2020 09:10 PM
Surr: Tetrachloro-m-xylene	*79.9*		*45-124*	*%REC*	1	2/16/2020 09:10 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/18/20 13:11		Analyst: **RSH**
Mercury	ND		0.020	mg/Kg-dry	1	2/18/2020 06:13 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/17/20 17:56		Analyst: **DSC**
Arsenic	**3.9**		**0.40**	**mg/Kg-dry**	1	2/18/2020 08:01 PM
Barium	**61**		**0.40**	**mg/Kg-dry**	1	2/18/2020 08:01 PM
Cadmium	ND		0.16	mg/Kg-dry	1	2/18/2020 08:01 PM
Chromium	**15**		**0.40**	**mg/Kg-dry**	1	2/18/2020 08:01 PM
Copper	**21**		**4.0**	**mg/Kg-dry**	10	2/19/2020 03:48 PM
Lead	**8.7**		**0.40**	**mg/Kg-dry**	1	2/18/2020 08:01 PM
Nickel	**20**		**0.40**	**mg/Kg-dry**	1	2/18/2020 08:01 PM
Selenium	ND		0.40	mg/Kg-dry	1	2/18/2020 08:01 PM
Silver	ND		0.40	mg/Kg-dry	1	2/18/2020 08:01 PM
Thorium	**4.4**		**0.40**	**mg/Kg-dry**	1	2/18/2020 08:01 PM
Uranium	**1.1**		**0.40**	**mg/Kg-dry**	1	2/18/2020 08:01 PM
Zinc	**50**		**8.1**	**mg/Kg-dry**	10	2/19/2020 03:48 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/19/20 18:03		Analyst: **EEW**
1-Methylnaphthalene	ND		5.3	µg/Kg-dry	1	2/20/2020 02:34 AM
2-Chloronaphthalene	ND		5.3	µg/Kg-dry	1	2/20/2020 02:34 AM
2-Methylnaphthalene	ND		5.3	µg/Kg-dry	1	2/20/2020 02:34 AM
Acenaphthene	ND		5.3	µg/Kg-dry	1	2/20/2020 02:34 AM
Acenaphthylene	ND		5.3	µg/Kg-dry	1	2/20/2020 02:34 AM
Anthracene	ND		5.3	µg/Kg-dry	1	2/20/2020 02:34 AM
Benzo(a)anthracene	ND		5.3	µg/Kg-dry	1	2/20/2020 02:34 AM
Benzo(a)pyrene	ND		5.3	µg/Kg-dry	1	2/20/2020 02:34 AM
Benzo(b)fluoranthene	ND		5.3	µg/Kg-dry	1	2/20/2020 02:34 AM
Benzo(g,h,i)perylene	ND		5.3	µg/Kg-dry	1	2/20/2020 02:34 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: S-8 3-8' **Lab ID:** 20020850-14
Collection Date: 2/12/2020 01:05 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.3	µg/Kg-dry	1	2/20/2020 02:34 AM
Chrysene	ND		5.3	µg/Kg-dry	1	2/20/2020 02:34 AM
Dibenzo(a,h)anthracene	ND		5.3	µg/Kg-dry	1	2/20/2020 02:34 AM
Fluoranthene	ND		5.3	µg/Kg-dry	1	2/20/2020 02:34 AM
Fluorene	ND		5.3	µg/Kg-dry	1	2/20/2020 02:34 AM
Indeno(1,2,3-cd)pyrene	ND		5.3	µg/Kg-dry	1	2/20/2020 02:34 AM
Naphthalene	ND		5.3	µg/Kg-dry	1	2/20/2020 02:34 AM
Phenanthrene	**5.7**		**5.3**	**µg/Kg-dry**	1	2/20/2020 02:34 AM
Pyrene	ND		5.3	µg/Kg-dry	1	2/20/2020 02:34 AM
Surr: 2-Fluorobiphenyl	*86.1*		*20-140*	*%REC*	1	2/20/2020 02:34 AM
Surr: 4-Terphenyl-d14	*83.1*		*22-172*	*%REC*	1	2/20/2020 02:34 AM
Surr: Nitrobenzene-d5	*74.7*		*28-140*	*%REC*	1	2/20/2020 02:34 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/13/20 11:51		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
1,1,1-Trichloroethane	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
1,1,2,2-Tetrachloroethane	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
1,1,2-Trichloroethane	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
1,1,2-Trichlorotrifluoroethane	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
1,1-Dichloroethane	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
1,1-Dichloroethene	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
1,2,3-Trichloropropane	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
1,2,4-Trichlorobenzene	ND		150	µg/Kg-dry	1	2/19/2020 03:40 PM
1,2,4-Trimethylbenzene	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
1,2-Dibromo-3-chloropropane	ND		150	µg/Kg-dry	1	2/19/2020 03:40 PM
1,2-Dibromoethane	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
1,2-Dichlorobenzene	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
1,2-Dichloroethane	ND		150	µg/Kg-dry	1	2/19/2020 03:40 PM
1,2-Dichloropropane	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
1,3,5-Trimethylbenzene	ND		150	µg/Kg-dry	1	2/19/2020 03:40 PM
1,3-Dichlorobenzene	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
1,4-Dichlorobenzene	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
2-Butanone	ND		300	µg/Kg-dry	1	2/19/2020 03:40 PM
2-Hexanone	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
2-Methylnaphthalene	ND		150	µg/Kg-dry	1	2/19/2020 03:40 PM
4-Methyl-2-pentanone	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
Acetone	ND		150	µg/Kg-dry	1	2/19/2020 03:40 PM
Acrylonitrile	ND		150	µg/Kg-dry	1	2/19/2020 03:40 PM
Benzene	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
Bromochloromethane	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
Bromodichloromethane	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-8 3-8'
Collection Date: 2/12/2020 01:05 PM

Work Order: 20020850
Lab ID: 20020850-14
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
Bromomethane	ND		150	µg/Kg-dry	1	2/19/2020 03:40 PM
Carbon disulfide	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
Carbon tetrachloride	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
Chlorobenzene	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
Chloroethane	ND		150	µg/Kg-dry	1	2/19/2020 03:40 PM
Chloroform	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
Chloromethane	ND		150	µg/Kg-dry	1	2/19/2020 03:40 PM
cis-1,2-Dichloroethene	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
cis-1,3-Dichloropropene	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
Dibromochloromethane	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
Dibromomethane	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
Dichlorodifluoromethane	ND		150	µg/Kg-dry	1	2/19/2020 03:40 PM
Diethyl ether	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
Ethylbenzene	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
Hexachloroethane	ND		150	µg/Kg-dry	1	2/19/2020 03:40 PM
Isopropylbenzene	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
m,p-Xylene	ND		89	µg/Kg-dry	1	2/19/2020 03:40 PM
Methyl iodide	ND		740	µg/Kg-dry	1	2/19/2020 03:40 PM
Methyl tert-butyl ether	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
Methylene chloride	ND		370	µg/Kg-dry	1	2/19/2020 03:40 PM
Naphthalene	ND		150	µg/Kg-dry	1	2/19/2020 03:40 PM
n-Propylbenzene	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
o-Xylene	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
Styrene	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
Tetrachloroethene	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
Toluene	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
trans-1,2-Dichloroethene	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
trans-1,3-Dichloropropene	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
trans-1,4-Dichloro-2-butene	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
Trichloroethene	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
Trichlorofluoromethane	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
Vinyl acetate	ND		370	µg/Kg-dry	1	2/19/2020 03:40 PM
Vinyl chloride	ND		44	µg/Kg-dry	1	2/19/2020 03:40 PM
Xylenes, Total	ND		130	µg/Kg-dry	1	2/19/2020 03:40 PM
Surr: 1,2-Dichloroethane-d4	*107*		*70-130*	*%REC*	1	2/19/2020 03:40 PM
Surr: 4-Bromofluorobenzene	*98.4*		*70-130*	*%REC*	1	2/19/2020 03:40 PM
Surr: Dibromofluoromethane	*98.6*		*70-130*	*%REC*	1	2/19/2020 03:40 PM
Surr: Toluene-d8	*99.5*		*70-130*	*%REC*	1	2/19/2020 03:40 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/13/20 13:02 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20020850
Sample ID: S-8 3-8'
Lab ID: 20020850-14
Collection Date: 2/12/2020 01:05 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**0.0069**		**0.0063**	**mg/Kg-dry**	1	2/18/2020 10:45 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**22**		**0.10**	**% of sample**	1	2/17/2020 02:45 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/13/20 09:25	Analyst: **CAC**
Phosphorus, Total	**380**		**97**	**mg/Kg-dry**	5	2/13/2020 04:14 PM
PH			**SW9045D**		Prep: EXTRACT 2/13/20 10:29	Analyst: **DNW**
pH	**8.63**		**0.100**	**s.u.**	1	2/13/2020 03:10 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: A-3
Collection Date: 2/12/2020 12:00 PM

Work Order: 20020850
Lab ID: 20020850-15
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/17/20 15:44		Analyst: **RM**
Aroclor 1016	ND		380	µg/Kg-dry	1	2/17/2020 07:43 PM
Aroclor 1221	ND		380	µg/Kg-dry	1	2/17/2020 07:43 PM
Aroclor 1232	ND		380	µg/Kg-dry	1	2/17/2020 07:43 PM
Aroclor 1242	ND		380	µg/Kg-dry	1	2/17/2020 07:43 PM
Aroclor 1248	ND		380	µg/Kg-dry	1	2/17/2020 07:43 PM
Aroclor 1254	ND		380	µg/Kg-dry	1	2/17/2020 07:43 PM
Aroclor 1260	ND		380	µg/Kg-dry	1	2/17/2020 07:43 PM
Aroclor 1262	ND		380	µg/Kg-dry	1	2/17/2020 07:43 PM
Aroclor 1268	ND		380	µg/Kg-dry	1	2/17/2020 07:43 PM
Surr: Decachlorobiphenyl	*83.3*		*40-140*	*%REC*	1	2/17/2020 07:43 PM
Surr: Tetrachloro-m-xylene	*81.1*		*45-124*	*%REC*	1	2/17/2020 07:43 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/18/20 13:11		Analyst: **RSH**
Mercury	**0.040**		**0.023**	**mg/Kg-dry**	1	2/18/2020 06:15 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/17/20 17:56		Analyst: **DSC**
Arsenic	**5.7**		**0.40**	**mg/Kg-dry**	1	2/18/2020 08:06 PM
Barium	**61**		**0.40**	**mg/Kg-dry**	1	2/18/2020 08:06 PM
Cadmium	ND		0.16	mg/Kg-dry	1	2/18/2020 08:06 PM
Chromium	**14**		**0.40**	**mg/Kg-dry**	1	2/18/2020 08:06 PM
Copper	**33**		**4.0**	**mg/Kg-dry**	10	2/19/2020 03:50 PM
Lead	**16**		**0.40**	**mg/Kg-dry**	1	2/18/2020 08:06 PM
Nickel	**27**		**0.40**	**mg/Kg-dry**	1	2/18/2020 08:06 PM
Selenium	ND		0.40	mg/Kg-dry	1	2/18/2020 08:06 PM
Silver	ND		0.40	mg/Kg-dry	1	2/18/2020 08:06 PM
Thorium	**3.9**		**0.40**	**mg/Kg-dry**	1	2/18/2020 08:06 PM
Uranium	**1.2**		**0.40**	**mg/Kg-dry**	1	2/18/2020 08:06 PM
Zinc	**55**		**8.0**	**mg/Kg-dry**	10	2/19/2020 03:50 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/19/20 18:03		Analyst: **EEW**
1-Methylnaphthalene	**14**		**5.1**	**µg/Kg-dry**	1	2/20/2020 02:49 AM
2-Chloronaphthalene	ND		5.1	µg/Kg-dry	1	2/20/2020 02:49 AM
2-Methylnaphthalene	ND		5.1	µg/Kg-dry	1	2/20/2020 02:49 AM
Acenaphthene	**83**		**5.1**	**µg/Kg-dry**	1	2/20/2020 02:49 AM
Acenaphthylene	**17**		**5.1**	**µg/Kg-dry**	1	2/20/2020 02:49 AM
Anthracene	**33**		**5.1**	**µg/Kg-dry**	1	2/20/2020 02:49 AM
Benzo(a)anthracene	**42**		**5.1**	**µg/Kg-dry**	1	2/20/2020 02:49 AM
Benzo(a)pyrene	**27**		**5.1**	**µg/Kg-dry**	1	2/20/2020 02:49 AM
Benzo(b)fluoranthene	**24**		**5.1**	**µg/Kg-dry**	1	2/20/2020 02:49 AM
Benzo(g,h,i)perylene	**6.1**		**5.1**	**µg/Kg-dry**	1	2/20/2020 02:49 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20020850
Sample ID: A-3
Lab ID: 20020850-15
Collection Date: 2/12/2020 12:00 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**8.3**		**5.1**	**µg/Kg-dry**	1	2/20/2020 02:49 AM
Chrysene	**37**		**5.1**	**µg/Kg-dry**	1	2/20/2020 02:49 AM
Dibenzo(a,h)anthracene	ND		5.1	µg/Kg-dry	1	2/20/2020 02:49 AM
Fluoranthene	**110**		**5.1**	**µg/Kg-dry**	1	2/20/2020 02:49 AM
Fluorene	**55**		**5.1**	**µg/Kg-dry**	1	2/20/2020 02:49 AM
Indeno(1,2,3-cd)pyrene	**5.9**		**5.1**	**µg/Kg-dry**	1	2/20/2020 02:49 AM
Naphthalene	ND		5.1	µg/Kg-dry	1	2/20/2020 02:49 AM
Phenanthrene	**54**		**5.1**	**µg/Kg-dry**	1	2/20/2020 02:49 AM
Pyrene	**100**		**5.1**	**µg/Kg-dry**	1	2/20/2020 02:49 AM
Surr: 2-Fluorobiphenyl	*89.2*		*20-140*	*%REC*	1	2/20/2020 02:49 AM
Surr: 4-Terphenyl-d14	*85.1*		*22-172*	*%REC*	1	2/20/2020 02:49 AM
Surr: Nitrobenzene-d5	*80.6*		*28-140*	*%REC*	1	2/20/2020 02:49 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/13/20 11:51		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
1,1,1-Trichloroethane	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
1,1,2,2-Tetrachloroethane	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
1,1,2-Trichloroethane	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
1,1,2-Trichlorotrifluoroethane	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
1,1-Dichloroethane	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
1,1-Dichloroethene	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
1,2,3-Trichloropropane	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
1,2,4-Trichlorobenzene	ND		130	µg/Kg-dry	1	2/19/2020 04:13 PM
1,2,4-Trimethylbenzene	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
1,2-Dibromo-3-chloropropane	ND		130	µg/Kg-dry	1	2/19/2020 04:13 PM
1,2-Dibromoethane	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
1,2-Dichlorobenzene	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
1,2-Dichloroethane	ND		130	µg/Kg-dry	1	2/19/2020 04:13 PM
1,2-Dichloropropane	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
1,3,5-Trimethylbenzene	ND		130	µg/Kg-dry	1	2/19/2020 04:13 PM
1,3-Dichlorobenzene	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
1,4-Dichlorobenzene	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
2-Butanone	ND		270	µg/Kg-dry	1	2/19/2020 04:13 PM
2-Hexanone	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
2-Methylnaphthalene	ND		130	µg/Kg-dry	1	2/19/2020 04:13 PM
4-Methyl-2-pentanone	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
Acetone	ND		130	µg/Kg-dry	1	2/19/2020 04:13 PM
Acrylonitrile	ND		130	µg/Kg-dry	1	2/19/2020 04:13 PM
Benzene	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
Bromochloromethane	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
Bromodichloromethane	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: A-3 **Lab ID:** 20020850-15
Collection Date: 2/12/2020 12:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
Bromomethane	ND		130	µg/Kg-dry	1	2/19/2020 04:13 PM
Carbon disulfide	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
Carbon tetrachloride	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
Chlorobenzene	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
Chloroethane	ND		130	µg/Kg-dry	1	2/19/2020 04:13 PM
Chloroform	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
Chloromethane	ND		130	µg/Kg-dry	1	2/19/2020 04:13 PM
cis-1,2-Dichloroethene	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
cis-1,3-Dichloropropene	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
Dibromochloromethane	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
Dibromomethane	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
Dichlorodifluoromethane	ND		130	µg/Kg-dry	1	2/19/2020 04:13 PM
Diethyl ether	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
Ethylbenzene	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
Hexachloroethane	ND		130	µg/Kg-dry	1	2/19/2020 04:13 PM
Isopropylbenzene	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
m,p-Xylene	ND		80	µg/Kg-dry	1	2/19/2020 04:13 PM
Methyl iodide	ND		660	µg/Kg-dry	1	2/19/2020 04:13 PM
Methyl tert-butyl ether	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
Methylene chloride	ND		330	µg/Kg-dry	1	2/19/2020 04:13 PM
Naphthalene	ND		130	µg/Kg-dry	1	2/19/2020 04:13 PM
n-Propylbenzene	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
o-Xylene	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
Styrene	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
Tetrachloroethene	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
Toluene	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
trans-1,2-Dichloroethene	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
trans-1,3-Dichloropropene	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
trans-1,4-Dichloro-2-butene	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
Trichloroethene	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
Trichlorofluoromethane	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
Vinyl acetate	ND		330	µg/Kg-dry	1	2/19/2020 04:13 PM
Vinyl chloride	ND		40	µg/Kg-dry	1	2/19/2020 04:13 PM
Xylenes, Total	ND		120	µg/Kg-dry	1	2/19/2020 04:13 PM
Surr: 1,2-Dichloroethane-d4	*106*		*70-130*	*%REC*	1	2/19/2020 04:13 PM
Surr: 4-Bromofluorobenzene	*103*		*70-130*	*%REC*	1	2/19/2020 04:13 PM
Surr: Dibromofluoromethane	*95.2*		*70-130*	*%REC*	1	2/19/2020 04:13 PM
Surr: Toluene-d8	*101*		*70-130*	*%REC*	1	2/19/2020 04:13 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/13/20 14:33 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20020850
Sample ID: A-3
Lab ID: 20020850-15
Collection Date: 2/12/2020 12:00 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**0.0064**		**0.0062**	**mg/Kg-dry**	1	2/18/2020 10:45 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**20**		**0.10**	**% of sample**	1	2/14/2020 10:18 AM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/13/20 09:25	Analyst: **CAC**
Phosphorus, Total	**410**		**110**	**mg/Kg-dry**	5	2/13/2020 04:15 PM
PH			**SW9045D**		Prep: EXTRACT 2/13/20 10:29	Analyst: **DNW**
pH	**8.71**		**0.100**	**s.u.**	1	2/13/2020 03:10 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-2 5-7'
Collection Date: 2/12/2020 02:00 PM

Work Order: 20020850
Lab ID: 20020850-16
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/17/20 15:44		Analyst: **RM**
Aroclor 1016	ND		210	µg/Kg-dry	1	2/17/2020 07:59 PM
Aroclor 1221	ND		210	µg/Kg-dry	1	2/17/2020 07:59 PM
Aroclor 1232	ND		210	µg/Kg-dry	1	2/17/2020 07:59 PM
Aroclor 1242	ND		210	µg/Kg-dry	1	2/17/2020 07:59 PM
Aroclor 1248	ND		210	µg/Kg-dry	1	2/17/2020 07:59 PM
Aroclor 1254	ND		210	µg/Kg-dry	1	2/17/2020 07:59 PM
Aroclor 1260	ND		210	µg/Kg-dry	1	2/17/2020 07:59 PM
Aroclor 1262	ND		210	µg/Kg-dry	1	2/17/2020 07:59 PM
Aroclor 1268	ND		210	µg/Kg-dry	1	2/17/2020 07:59 PM
Surr: Decachlorobiphenyl	*64.2*		*40-140*	*%REC*	1	2/17/2020 07:59 PM
Surr: Tetrachloro-m-xylene	*67.8*		*45-124*	*%REC*	1	2/17/2020 07:59 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/18/20 13:11		Analyst: **RSH**
Mercury	**0.037**		**0.025**	**mg/Kg-dry**	1	2/18/2020 06:17 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/17/20 17:56		Analyst: **DSC**
Arsenic	**6.8**		**0.53**	**mg/Kg-dry**	1	2/18/2020 08:08 PM
Barium	**100**		**0.53**	**mg/Kg-dry**	1	2/18/2020 08:08 PM
Cadmium	**6.9**		**0.21**	**mg/Kg-dry**	1	2/18/2020 08:08 PM
Chromium	**30**		**0.53**	**mg/Kg-dry**	1	2/18/2020 08:08 PM
Copper	**1,600**		**53**	**mg/Kg-dry**	100	2/19/2020 03:51 PM
Lead	**110**		**0.53**	**mg/Kg-dry**	1	2/18/2020 08:08 PM
Nickel	**22**		**0.53**	**mg/Kg-dry**	1	2/18/2020 08:08 PM
Selenium	ND		0.53	mg/Kg-dry	1	2/18/2020 08:08 PM
Silver	ND		0.53	mg/Kg-dry	1	2/18/2020 08:08 PM
Thorium	**5.6**		**0.53**	**mg/Kg-dry**	1	2/18/2020 08:08 PM
Uranium	**0.96**		**0.53**	**mg/Kg-dry**	1	2/18/2020 08:08 PM
Zinc	**1,400**		**110**	**mg/Kg-dry**	100	2/19/2020 03:51 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/19/20 18:03		Analyst: **EEW**
1-Methylnaphthalene	**110**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:05 AM
2-Chloronaphthalene	ND		5.3	µg/Kg-dry	1	2/20/2020 03:05 AM
2-Methylnaphthalene	**100**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:05 AM
Acenaphthene	**74**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:05 AM
Acenaphthylene	ND		5.3	µg/Kg-dry	1	2/20/2020 03:05 AM
Anthracene	**33**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:05 AM
Benzo(a)anthracene	**27**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:05 AM
Benzo(a)pyrene	**17**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:05 AM
Benzo(b)fluoranthene	**21**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:05 AM
Benzo(g,h,i)perylene	**8.8**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:05 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: S-2 5-7' **Lab ID:** 20020850-16
Collection Date: 2/12/2020 02:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**7.1**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:05 AM
Chrysene	**33**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:05 AM
Dibenzo(a,h)anthracene	ND		5.3	µg/Kg-dry	1	2/20/2020 03:05 AM
Fluoranthene	**99**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:05 AM
Fluorene	**42**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:05 AM
Indeno(1,2,3-cd)pyrene	**6.8**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:05 AM
Naphthalene	**250**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:05 AM
Phenanthrene	**170**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:05 AM
Pyrene	**68**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:05 AM
Surr: 2-Fluorobiphenyl	*90.1*		*20-140*	*%REC*	1	2/20/2020 03:05 AM
Surr: 4-Terphenyl-d14	*84.9*		*22-172*	*%REC*	1	2/20/2020 03:05 AM
Surr: Nitrobenzene-d5	*80.8*		*28-140*	*%REC*	1	2/20/2020 03:05 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/13/20 11:51		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
1,1,1-Trichloroethane	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
1,1,2,2-Tetrachloroethane	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
1,1,2-Trichloroethane	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
1,1,2-Trichlorotrifluoroethane	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
1,1-Dichloroethane	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
1,1-Dichloroethene	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
1,2,3-Trichloropropane	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
1,2,4-Trichlorobenzene	ND		150	µg/Kg-dry	1	2/19/2020 04:30 PM
1,2,4-Trimethylbenzene	**64**		**44**	**µg/Kg-dry**	1	2/19/2020 04:30 PM
1,2-Dibromo-3-chloropropane	ND		150	µg/Kg-dry	1	2/19/2020 04:30 PM
1,2-Dibromoethane	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
1,2-Dichlorobenzene	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
1,2-Dichloroethane	ND		150	µg/Kg-dry	1	2/19/2020 04:30 PM
1,2-Dichloropropane	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
1,3,5-Trimethylbenzene	ND		150	µg/Kg-dry	1	2/19/2020 04:30 PM
1,3-Dichlorobenzene	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
1,4-Dichlorobenzene	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
2-Butanone	ND		290	µg/Kg-dry	1	2/19/2020 04:30 PM
2-Hexanone	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
2-Methylnaphthalene	**500**		**150**	**µg/Kg-dry**	1	2/19/2020 04:30 PM
4-Methyl-2-pentanone	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
Acetone	ND		150	µg/Kg-dry	1	2/19/2020 04:30 PM
Acrylonitrile	ND		150	µg/Kg-dry	1	2/19/2020 04:30 PM
Benzene	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
Bromochloromethane	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
Bromodichloromethane	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: S-2 5-7' **Lab ID:** 20020850-16
Collection Date: 2/12/2020 02:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
Bromomethane	ND		150	µg/Kg-dry	1	2/19/2020 04:30 PM
Carbon disulfide	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
Carbon tetrachloride	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
Chlorobenzene	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
Chloroethane	ND		150	µg/Kg-dry	1	2/19/2020 04:30 PM
Chloroform	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
Chloromethane	ND		150	µg/Kg-dry	1	2/19/2020 04:30 PM
cis-1,2-Dichloroethene	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
cis-1,3-Dichloropropene	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
Dibromochloromethane	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
Dibromomethane	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
Dichlorodifluoromethane	ND		150	µg/Kg-dry	1	2/19/2020 04:30 PM
Diethyl ether	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
Ethylbenzene	**48**		**44**	**µg/Kg-dry**	1	2/19/2020 04:30 PM
Hexachloroethane	ND		150	µg/Kg-dry	1	2/19/2020 04:30 PM
Isopropylbenzene	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
m,p-Xylene	ND		87	µg/Kg-dry	1	2/19/2020 04:30 PM
Methyl iodide	ND		730	µg/Kg-dry	1	2/19/2020 04:30 PM
Methyl tert-butyl ether	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
Methylene chloride	ND		360	µg/Kg-dry	1	2/19/2020 04:30 PM
Naphthalene	**390**		**150**	**µg/Kg-dry**	1	2/19/2020 04:30 PM
n-Propylbenzene	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
o-Xylene	**60**		**44**	**µg/Kg-dry**	1	2/19/2020 04:30 PM
Styrene	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
Tetrachloroethene	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
Toluene	**180**		**44**	**µg/Kg-dry**	1	2/19/2020 04:30 PM
trans-1,2-Dichloroethene	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
trans-1,3-Dichloropropene	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
trans-1,4-Dichloro-2-butene	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
Trichloroethene	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
Trichlorofluoromethane	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
Vinyl acetate	ND		360	µg/Kg-dry	1	2/19/2020 04:30 PM
Vinyl chloride	ND		44	µg/Kg-dry	1	2/19/2020 04:30 PM
Xylenes, Total	**150**		**130**	**µg/Kg-dry**	1	2/19/2020 04:30 PM
Surr: 1,2-Dichloroethane-d4	*108*		*70-130*	*%REC*	1	2/19/2020 04:30 PM
Surr: 4-Bromofluorobenzene	*104*		*70-130*	*%REC*	1	2/19/2020 04:30 PM
Surr: Dibromofluoromethane	*98.4*		*70-130*	*%REC*	1	2/19/2020 04:30 PM
Surr: Toluene-d8	*98.7*		*70-130*	*%REC*	1	2/19/2020 04:30 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/13/20 14:42 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20020850
Sample ID: S-2 5-7'
Lab ID: 20020850-16
Collection Date: 2/12/2020 02:00 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**0.012**		**0.0065**	**mg/Kg-dry**	1	2/18/2020 10:45 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**23**		**0.10**	**% of sample**	1	2/14/2020 10:18 AM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/13/20 09:25	Analyst: **CAC**
Phosphorus, Total	**220**		**59**	**mg/Kg-dry**	2	2/13/2020 04:35 PM
PH			**SW9045D**		Prep: EXTRACT 2/13/20 10:29	Analyst: **DNW**
pH	**7.95**		**0.100**	**s.u.**	1	2/13/2020 03:10 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-2 7-12'
Collection Date: 2/12/2020 02:05 PM

Work Order: 20020850
Lab ID: 20020850-17
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/17/20 15:44		Analyst: **RM**
Aroclor 1016	ND		88	µg/Kg-dry	1	2/17/2020 08:14 PM
Aroclor 1221	ND		88	µg/Kg-dry	1	2/17/2020 08:14 PM
Aroclor 1232	ND		88	µg/Kg-dry	1	2/17/2020 08:14 PM
Aroclor 1242	ND		88	µg/Kg-dry	1	2/17/2020 08:14 PM
Aroclor 1248	ND		88	µg/Kg-dry	1	2/17/2020 08:14 PM
Aroclor 1254	ND		88	µg/Kg-dry	1	2/17/2020 08:14 PM
Aroclor 1260	ND		88	µg/Kg-dry	1	2/17/2020 08:14 PM
Aroclor 1262	ND		88	µg/Kg-dry	1	2/17/2020 08:14 PM
Aroclor 1268	ND		88	µg/Kg-dry	1	2/17/2020 08:14 PM
Surr: Decachlorobiphenyl	*29.2*	S	*40-140*	*%REC*	1	2/17/2020 08:14 PM
Surr: Tetrachloro-m-xylene	*52.4*		*45-124*	*%REC*	1	2/17/2020 08:14 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/18/20 13:11		Analyst: **RSH**
Mercury	ND		0.024	mg/Kg-dry	1	2/18/2020 06:19 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/17/20 17:56		Analyst: **DSC**
Arsenic	**6.5**		**0.42**	**mg/Kg-dry**	1	2/18/2020 08:09 PM
Barium	**97**		**0.42**	**mg/Kg-dry**	1	2/18/2020 08:09 PM
Cadmium	**0.67**		**0.17**	**mg/Kg-dry**	1	2/18/2020 08:09 PM
Chromium	**25**		**0.42**	**mg/Kg-dry**	1	2/18/2020 08:09 PM
Copper	**120**		**4.2**	**mg/Kg-dry**	10	2/19/2020 03:53 PM
Lead	**23**		**0.42**	**mg/Kg-dry**	1	2/18/2020 08:09 PM
Nickel	**26**		**0.42**	**mg/Kg-dry**	1	2/18/2020 08:09 PM
Selenium	ND		0.42	mg/Kg-dry	1	2/18/2020 08:09 PM
Silver	ND		0.42	mg/Kg-dry	1	2/18/2020 08:09 PM
Thorium	**6.0**		**0.42**	**mg/Kg-dry**	1	2/18/2020 08:09 PM
Uranium	**1.3**		**0.42**	**mg/Kg-dry**	1	2/18/2020 08:09 PM
Zinc	**200**		**8.3**	**mg/Kg-dry**	10	2/19/2020 03:53 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/19/20 18:03		Analyst: **EEW**
1-Methylnaphthalene	**6.7**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:20 AM
2-Chloronaphthalene	ND		5.3	µg/Kg-dry	1	2/20/2020 03:20 AM
2-Methylnaphthalene	**7.2**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:20 AM
Acenaphthene	ND		5.3	µg/Kg-dry	1	2/20/2020 03:20 AM
Acenaphthylene	ND		5.3	µg/Kg-dry	1	2/20/2020 03:20 AM
Anthracene	**6.8**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:20 AM
Benzo(a)anthracene	**7.9**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:20 AM
Benzo(a)pyrene	ND		5.3	µg/Kg-dry	1	2/20/2020 03:20 AM
Benzo(b)fluoranthene	ND		5.3	µg/Kg-dry	1	2/20/2020 03:20 AM
Benzo(g,h,i)perylene	ND		5.3	µg/Kg-dry	1	2/20/2020 03:20 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: S-2 7-12' **Lab ID:** 20020850-17
Collection Date: 2/12/2020 02:05 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.3	µg/Kg-dry	1	2/20/2020 03:20 AM
Chrysene	**6.7**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:20 AM
Dibenzo(a,h)anthracene	ND		5.3	µg/Kg-dry	1	2/20/2020 03:20 AM
Fluoranthene	**22**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:20 AM
Fluorene	ND		5.3	µg/Kg-dry	1	2/20/2020 03:20 AM
Indeno(1,2,3-cd)pyrene	ND		5.3	µg/Kg-dry	1	2/20/2020 03:20 AM
Naphthalene	**7.9**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:20 AM
Phenanthrene	**28**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:20 AM
Pyrene	**14**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:20 AM
Surr: 2-Fluorobiphenyl	*94.0*		*20-140*	*%REC*	1	2/20/2020 03:20 AM
Surr: 4-Terphenyl-d14	*86.7*		*22-172*	*%REC*	1	2/20/2020 03:20 AM
Surr: Nitrobenzene-d5	*82.8*		*28-140*	*%REC*	1	2/20/2020 03:20 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/13/20 11:51		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
1,1,1-Trichloroethane	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
1,1,2,2-Tetrachloroethane	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
1,1,2-Trichloroethane	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
1,1,2-Trichlorotrifluoroethane	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
1,1-Dichloroethane	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
1,1-Dichloroethene	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
1,2,3-Trichloropropane	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
1,2,4-Trichlorobenzene	ND		150	µg/Kg-dry	1	2/19/2020 04:46 PM
1,2,4-Trimethylbenzene	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
1,2-Dibromo-3-chloropropane	ND		150	µg/Kg-dry	1	2/19/2020 04:46 PM
1,2-Dibromoethane	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
1,2-Dichlorobenzene	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
1,2-Dichloroethane	ND		150	µg/Kg-dry	1	2/19/2020 04:46 PM
1,2-Dichloropropane	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
1,3,5-Trimethylbenzene	ND		150	µg/Kg-dry	1	2/19/2020 04:46 PM
1,3-Dichlorobenzene	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
1,4-Dichlorobenzene	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
2-Butanone	ND		300	µg/Kg-dry	1	2/19/2020 04:46 PM
2-Hexanone	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
2-Methylnaphthalene	ND		150	µg/Kg-dry	1	2/19/2020 04:46 PM
4-Methyl-2-pentanone	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
Acetone	ND		150	µg/Kg-dry	1	2/19/2020 04:46 PM
Acrylonitrile	ND		150	µg/Kg-dry	1	2/19/2020 04:46 PM
Benzene	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
Bromochloromethane	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
Bromodichloromethane	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: S-2 7-12' **Lab ID:** 20020850-17
Collection Date: 2/12/2020 02:05 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
Bromomethane	ND		150	µg/Kg-dry	1	2/19/2020 04:46 PM
Carbon disulfide	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
Carbon tetrachloride	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
Chlorobenzene	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
Chloroethane	ND		150	µg/Kg-dry	1	2/19/2020 04:46 PM
Chloroform	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
Chloromethane	ND		150	µg/Kg-dry	1	2/19/2020 04:46 PM
cis-1,2-Dichloroethene	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
cis-1,3-Dichloropropene	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
Dibromochloromethane	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
Dibromomethane	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
Dichlorodifluoromethane	ND		150	µg/Kg-dry	1	2/19/2020 04:46 PM
Diethyl ether	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
Ethylbenzene	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
Hexachloroethane	ND		150	µg/Kg-dry	1	2/19/2020 04:46 PM
Isopropylbenzene	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
m,p-Xylene	ND		89	µg/Kg-dry	1	2/19/2020 04:46 PM
Methyl iodide	ND		740	µg/Kg-dry	1	2/19/2020 04:46 PM
Methyl tert-butyl ether	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
Methylene chloride	ND		370	µg/Kg-dry	1	2/19/2020 04:46 PM
Naphthalene	ND		150	µg/Kg-dry	1	2/19/2020 04:46 PM
n-Propylbenzene	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
o-Xylene	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
Styrene	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
Tetrachloroethene	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
Toluene	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
trans-1,2-Dichloroethene	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
trans-1,3-Dichloropropene	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
trans-1,4-Dichloro-2-butene	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
Trichloroethene	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
Trichlorofluoromethane	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
Vinyl acetate	ND		370	µg/Kg-dry	1	2/19/2020 04:46 PM
Vinyl chloride	ND		44	µg/Kg-dry	1	2/19/2020 04:46 PM
Xylenes, Total	ND		130	µg/Kg-dry	1	2/19/2020 04:46 PM
Surr: 1,2-Dichloroethane-d4	*106*		*70-130*	*%REC*	1	2/19/2020 04:46 PM
Surr: 4-Bromofluorobenzene	*99.6*		*70-130*	*%REC*	1	2/19/2020 04:46 PM
Surr: Dibromofluoromethane	*96.8*		*70-130*	*%REC*	1	2/19/2020 04:46 PM
Surr: Toluene-d8	*96.3*		*70-130*	*%REC*	1	2/19/2020 04:46 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/13/20 14:42 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20020850
Sample ID: S-2 7-12'
Lab ID: 20020850-17
Collection Date: 2/12/2020 02:05 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**0.0070**		**0.0065**	**mg/Kg-dry**	1	2/18/2020 10:45 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**24**		**0.10**	**% of sample**	1	2/14/2020 10:18 AM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/13/20 09:25	Analyst: **CAC**
Phosphorus, Total	**380**		**160**	**mg/Kg-dry**	5	2/13/2020 04:36 PM
PH			**SW9045D**		Prep: EXTRACT 2/13/20 10:29	Analyst: **DNW**
pH	**7.81**		**0.100**	**s.u.**	1	2/13/2020 03:10 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-5 2-3'
Collection Date: 2/12/2020 03:00 PM

Work Order: 20020850
Lab ID: 20020850-18
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/17/20 15:44		Analyst: **RM**
Aroclor 1016	ND		220	µg/Kg-dry	1	2/17/2020 08:29 PM
Aroclor 1221	ND		220	µg/Kg-dry	1	2/17/2020 08:29 PM
Aroclor 1232	ND		220	µg/Kg-dry	1	2/17/2020 08:29 PM
Aroclor 1242	ND		220	µg/Kg-dry	1	2/17/2020 08:29 PM
Aroclor 1248	ND		220	µg/Kg-dry	1	2/17/2020 08:29 PM
Aroclor 1254	ND		220	µg/Kg-dry	1	2/17/2020 08:29 PM
Aroclor 1260	ND		220	µg/Kg-dry	1	2/17/2020 08:29 PM
Aroclor 1262	ND		220	µg/Kg-dry	1	2/17/2020 08:29 PM
Aroclor 1268	ND		220	µg/Kg-dry	1	2/17/2020 08:29 PM
Surr: Decachlorobiphenyl	*80.0*		*40-140*	*%REC*	1	2/17/2020 08:29 PM
Surr: Tetrachloro-m-xylene	*86.0*		*45-124*	*%REC*	1	2/17/2020 08:29 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/18/20 13:11		Analyst: **RSH**
Mercury	**0.054**		**0.022**	**mg/Kg-dry**	1	2/18/2020 06:30 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/17/20 17:56		Analyst: **DSC**
Arsenic	**4.9**		**0.46**	**mg/Kg-dry**	1	2/18/2020 08:11 PM
Barium	**86**		**0.46**	**mg/Kg-dry**	1	2/18/2020 08:11 PM
Cadmium	**11**		**0.18**	**mg/Kg-dry**	1	2/18/2020 08:11 PM
Chromium	**17**		**0.46**	**mg/Kg-dry**	1	2/18/2020 08:11 PM
Copper	**1,600**		**46**	**mg/Kg-dry**	100	2/19/2020 03:54 PM
Lead	**66**		**0.46**	**mg/Kg-dry**	1	2/18/2020 08:11 PM
Nickel	**17**		**0.46**	**mg/Kg-dry**	1	2/18/2020 08:11 PM
Selenium	ND		0.46	mg/Kg-dry	1	2/18/2020 08:11 PM
Silver	**0.63**		**0.46**	**mg/Kg-dry**	1	2/18/2020 08:11 PM
Thorium	**3.6**		**0.46**	**mg/Kg-dry**	1	2/18/2020 08:11 PM
Uranium	**0.91**		**0.46**	**mg/Kg-dry**	1	2/18/2020 08:11 PM
Zinc	**680**		**92**	**mg/Kg-dry**	100	2/19/2020 03:54 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/19/20 18:03		Analyst: **EEW**
1-Methylnaphthalene	**190**		**4.9**	**µg/Kg-dry**	1	2/20/2020 03:36 AM
2-Chloronaphthalene	ND		4.9	µg/Kg-dry	1	2/20/2020 03:36 AM
2-Methylnaphthalene	**150**		**4.9**	**µg/Kg-dry**	1	2/20/2020 03:36 AM
Acenaphthene	**240**		**4.9**	**µg/Kg-dry**	1	2/20/2020 03:36 AM
Acenaphthylene	**180**		**4.9**	**µg/Kg-dry**	1	2/20/2020 03:36 AM
Anthracene	**1,000**		**4.9**	**µg/Kg-dry**	1	2/20/2020 03:36 AM
Benzo(a)anthracene	**700**		**4.9**	**µg/Kg-dry**	1	2/20/2020 03:36 AM
Benzo(a)pyrene	**470**		**4.9**	**µg/Kg-dry**	1	2/20/2020 03:36 AM
Benzo(b)fluoranthene	**760**		**4.9**	**µg/Kg-dry**	1	2/20/2020 03:36 AM
Benzo(g,h,i)perylene	**220**		**4.9**	**µg/Kg-dry**	1	2/20/2020 03:36 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-5 2-3'
Collection Date: 2/12/2020 03:00 PM

Work Order: 20020850
Lab ID: 20020850-18
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**180**		**4.9**	**µg/Kg-dry**	1	2/20/2020 03:36 AM
Chrysene	**690**		**4.9**	**µg/Kg-dry**	1	2/20/2020 03:36 AM
Dibenzo(a,h)anthracene	**39**		**4.9**	**µg/Kg-dry**	1	2/20/2020 03:36 AM
Fluoranthene	**2,900**		**4.9**	**µg/Kg-dry**	1	2/20/2020 03:36 AM
Fluorene	**650**		**4.9**	**µg/Kg-dry**	1	2/20/2020 03:36 AM
Indeno(1,2,3-cd)pyrene	**260**		**4.9**	**µg/Kg-dry**	1	2/20/2020 03:36 AM
Naphthalene	**81**		**4.9**	**µg/Kg-dry**	1	2/20/2020 03:36 AM
Phenanthrene	**3,200**		**4.9**	**µg/Kg-dry**	1	2/20/2020 03:36 AM
Pyrene	**1,400**		**4.9**	**µg/Kg-dry**	1	2/20/2020 03:36 AM
Surr: 2-Fluorobiphenyl	*81.7*		*20-140*	*%REC*	1	2/20/2020 03:36 AM
Surr: 4-Terphenyl-d14	*77.4*		*22-172*	*%REC*	1	2/20/2020 03:36 AM
Surr: Nitrobenzene-d5	*75.2*		*28-140*	*%REC*	1	2/20/2020 03:36 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/13/20 11:51		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
1,1,1-Trichloroethane	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
1,1,2,2-Tetrachloroethane	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
1,1,2-Trichloroethane	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
1,1,2-Trichlorotrifluoroethane	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
1,1-Dichloroethane	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
1,1-Dichloroethene	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
1,2,3-Trichloropropane	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
1,2,4-Trichlorobenzene	ND		130	µg/Kg-dry	1	2/19/2020 05:03 PM
1,2,4-Trimethylbenzene	**98**		**40**	**µg/Kg-dry**	1	2/19/2020 05:03 PM
1,2-Dibromo-3-chloropropane	ND		130	µg/Kg-dry	1	2/19/2020 05:03 PM
1,2-Dibromoethane	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
1,2-Dichlorobenzene	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
1,2-Dichloroethane	ND		130	µg/Kg-dry	1	2/19/2020 05:03 PM
1,2-Dichloropropane	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
1,3,5-Trimethylbenzene	ND		130	µg/Kg-dry	1	2/19/2020 05:03 PM
1,3-Dichlorobenzene	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
1,4-Dichlorobenzene	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
2-Butanone	ND		270	µg/Kg-dry	1	2/19/2020 05:03 PM
2-Hexanone	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
2-Methylnaphthalene	**940**		**130**	**µg/Kg-dry**	1	2/19/2020 05:03 PM
4-Methyl-2-pentanone	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
Acetone	ND		130	µg/Kg-dry	1	2/19/2020 05:03 PM
Acrylonitrile	ND		130	µg/Kg-dry	1	2/19/2020 05:03 PM
Benzene	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
Bromochloromethane	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
Bromodichloromethane	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: S-5 2-3' **Lab ID:** 20020850-18
Collection Date: 2/12/2020 03:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
Bromomethane	ND		130	µg/Kg-dry	1	2/19/2020 05:03 PM
Carbon disulfide	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
Carbon tetrachloride	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
Chlorobenzene	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
Chloroethane	ND		130	µg/Kg-dry	1	2/19/2020 05:03 PM
Chloroform	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
Chloromethane	ND		130	µg/Kg-dry	1	2/19/2020 05:03 PM
cis-1,2-Dichloroethene	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
cis-1,3-Dichloropropene	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
Dibromochloromethane	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
Dibromomethane	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
Dichlorodifluoromethane	ND		130	µg/Kg-dry	1	2/19/2020 05:03 PM
Diethyl ether	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
Ethylbenzene	**52**		**40**	**µg/Kg-dry**	1	2/19/2020 05:03 PM
Hexachloroethane	ND		130	µg/Kg-dry	1	2/19/2020 05:03 PM
Isopropylbenzene	**46**		**40**	**µg/Kg-dry**	1	2/19/2020 05:03 PM
m,p-Xylene	**200**		**81**	**µg/Kg-dry**	1	2/19/2020 05:03 PM
Methyl iodide	ND		670	µg/Kg-dry	1	2/19/2020 05:03 PM
Methyl tert-butyl ether	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
Methylene chloride	ND		340	µg/Kg-dry	1	2/19/2020 05:03 PM
Naphthalene	**570**		**130**	**µg/Kg-dry**	1	2/19/2020 05:03 PM
n-Propylbenzene	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
o-Xylene	**180**		**40**	**µg/Kg-dry**	1	2/19/2020 05:03 PM
Styrene	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
Tetrachloroethene	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
Toluene	**150**		**40**	**µg/Kg-dry**	1	2/19/2020 05:03 PM
trans-1,2-Dichloroethene	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
trans-1,3-Dichloropropene	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
trans-1,4-Dichloro-2-butene	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
Trichloroethene	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
Trichlorofluoromethane	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
Vinyl acetate	ND		340	µg/Kg-dry	1	2/19/2020 05:03 PM
Vinyl chloride	ND		40	µg/Kg-dry	1	2/19/2020 05:03 PM
Xylenes, Total	**380**		**120**	**µg/Kg-dry**	1	2/19/2020 05:03 PM
Surr: 1,2-Dichloroethane-d4	*108*		*70-130*	*%REC*	1	2/19/2020 05:03 PM
Surr: 4-Bromofluorobenzene	*101*		*70-130*	*%REC*	1	2/19/2020 05:03 PM
Surr: Dibromofluoromethane	*101*		*70-130*	*%REC*	1	2/19/2020 05:03 PM
Surr: Toluene-d8	*102*		*70-130*	*%REC*	1	2/19/2020 05:03 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/13/20 14:45 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20020850
Sample ID: S-5 2-3'
Lab ID: 20020850-18
Collection Date: 2/12/2020 03:00 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**0.014**		**0.0060**	**mg/Kg-dry**	1	2/18/2020 10:45 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**18**		**0.10**	**% of sample**	1	2/14/2020 10:18 AM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/13/20 09:25	Analyst: **CAC**
Phosphorus, Total	**250**		**110**	**mg/Kg-dry**	5	2/13/2020 04:38 PM
PH			**SW9045D**		Prep: EXTRACT 2/13/20 10:29	Analyst: **DNW**
pH	**9.69**		**0.100**	**s.u.**	1	2/13/2020 03:10 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-5 14-15'
Collection Date: 2/12/2020 03:25 PM

Work Order: 20020850
Lab ID: 20020850-19
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/17/20 15:44		Analyst: **RM**
Aroclor 1016	ND		330	µg/Kg-dry	1	2/17/2020 08:45 PM
Aroclor 1221	ND		330	µg/Kg-dry	1	2/17/2020 08:45 PM
Aroclor 1232	ND		330	µg/Kg-dry	1	2/17/2020 08:45 PM
Aroclor 1242	ND		330	µg/Kg-dry	1	2/17/2020 08:45 PM
Aroclor 1248	ND		330	µg/Kg-dry	1	2/17/2020 08:45 PM
Aroclor 1254	ND		330	µg/Kg-dry	1	2/17/2020 08:45 PM
Aroclor 1260	ND		330	µg/Kg-dry	1	2/17/2020 08:45 PM
Aroclor 1262	ND		330	µg/Kg-dry	1	2/17/2020 08:45 PM
Aroclor 1268	ND		330	µg/Kg-dry	1	2/17/2020 08:45 PM
Surr: Decachlorobiphenyl	*85.1*		*40-140*	*%REC*	1	2/17/2020 08:45 PM
Surr: Tetrachloro-m-xylene	*86.5*		*45-124*	*%REC*	1	2/17/2020 08:45 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/18/20 13:11		Analyst: **RSH**
Mercury	**0.070**		**0.023**	**mg/Kg-dry**	1	2/18/2020 06:32 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/17/20 17:56		Analyst: **DSC**
Arsenic	**7.6**		**0.45**	**mg/Kg-dry**	1	2/18/2020 08:13 PM
Barium	**69**		**0.45**	**mg/Kg-dry**	1	2/18/2020 08:13 PM
Cadmium	**7.3**		**0.18**	**mg/Kg-dry**	1	2/18/2020 08:13 PM
Chromium	**28**		**0.45**	**mg/Kg-dry**	1	2/18/2020 08:13 PM
Copper	**1,700**		**450**	**mg/Kg-dry**	1000	2/20/2020 04:56 PM
Lead	**210**		**45**	**mg/Kg-dry**	100	2/19/2020 03:56 PM
Nickel	**17**		**0.45**	**mg/Kg-dry**	1	2/18/2020 08:13 PM
Selenium	ND		0.45	mg/Kg-dry	1	2/18/2020 08:13 PM
Silver	ND		0.45	mg/Kg-dry	1	2/18/2020 08:13 PM
Thorium	**2.4**		**0.45**	**mg/Kg-dry**	1	2/18/2020 08:13 PM
Uranium	**1.2**		**0.45**	**mg/Kg-dry**	1	2/18/2020 08:13 PM
Zinc	**1,200**		**91**	**mg/Kg-dry**	100	2/19/2020 03:56 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/19/20 18:03		Analyst: **EEW**
1-Methylnaphthalene	**590**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:51 AM
2-Chloronaphthalene	ND		5.3	µg/Kg-dry	1	2/20/2020 03:51 AM
2-Methylnaphthalene	**690**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:51 AM
Acenaphthene	**280**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:51 AM
Acenaphthylene	**330**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:51 AM
Anthracene	**930**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:51 AM
Benzo(a)anthracene	**470**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:51 AM
Benzo(a)pyrene	**260**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:51 AM
Benzo(b)fluoranthene	**420**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:51 AM
Benzo(g,h,i)perylene	**110**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:51 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20020850
Sample ID: S-5 14-15'
Lab ID: 20020850-19
Collection Date: 2/12/2020 03:25 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**110**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:51 AM
Chrysene	**440**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:51 AM
Dibenzo(a,h)anthracene	**22**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:51 AM
Fluoranthene	**2,400**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:51 AM
Fluorene	**1,100**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:51 AM
Indeno(1,2,3-cd)pyrene	**130**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:51 AM
Naphthalene	**460**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:51 AM
Phenanthrene	**3,700**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:51 AM
Pyrene	**1,200**		**5.3**	**µg/Kg-dry**	1	2/20/2020 03:51 AM
Surr: 2-Fluorobiphenyl	*103*		*20-140*	*%REC*	1	2/20/2020 03:51 AM
Surr: 4-Terphenyl-d14	*97.3*		*22-172*	*%REC*	1	2/20/2020 03:51 AM
Surr: Nitrobenzene-d5	*89.2*		*28-140*	*%REC*	1	2/20/2020 03:51 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/13/20 11:51		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
1,1,1-Trichloroethane	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
1,1,2,2-Tetrachloroethane	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
1,1,2-Trichloroethane	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
1,1,2-Trichlorotrifluoroethane	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
1,1-Dichloroethane	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
1,1-Dichloroethene	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
1,2,3-Trichloropropane	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
1,2,4-Trichlorobenzene	ND		130	µg/Kg-dry	1	2/19/2020 05:19 PM
1,2,4-Trimethylbenzene	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
1,2-Dibromo-3-chloropropane	ND		130	µg/Kg-dry	1	2/19/2020 05:19 PM
1,2-Dibromoethane	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
1,2-Dichlorobenzene	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
1,2-Dichloroethane	ND		130	µg/Kg-dry	1	2/19/2020 05:19 PM
1,2-Dichloropropane	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
1,3,5-Trimethylbenzene	ND		130	µg/Kg-dry	1	2/19/2020 05:19 PM
1,3-Dichlorobenzene	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
1,4-Dichlorobenzene	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
2-Butanone	ND		250	µg/Kg-dry	1	2/19/2020 05:19 PM
2-Hexanone	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
2-Methylnaphthalene	**1,200**		**130**	**µg/Kg-dry**	1	2/19/2020 05:19 PM
4-Methyl-2-pentanone	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
Acetone	ND		130	µg/Kg-dry	1	2/19/2020 05:19 PM
Acrylonitrile	ND		130	µg/Kg-dry	1	2/19/2020 05:19 PM
Benzene	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
Bromochloromethane	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
Bromodichloromethane	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-5 14-15'
Collection Date: 2/12/2020 03:25 PM

Work Order: 20020850
Lab ID: 20020850-19
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
Bromomethane	ND		130	µg/Kg-dry	1	2/19/2020 05:19 PM
Carbon disulfide	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
Carbon tetrachloride	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
Chlorobenzene	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
Chloroethane	ND		130	µg/Kg-dry	1	2/19/2020 05:19 PM
Chloroform	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
Chloromethane	ND		130	µg/Kg-dry	1	2/19/2020 05:19 PM
cis-1,2-Dichloroethene	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
cis-1,3-Dichloropropene	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
Dibromochloromethane	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
Dibromomethane	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
Dichlorodifluoromethane	ND		130	µg/Kg-dry	1	2/19/2020 05:19 PM
Diethyl ether	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
Ethylbenzene	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
Hexachloroethane	ND		130	µg/Kg-dry	1	2/19/2020 05:19 PM
Isopropylbenzene	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
m,p-Xylene	ND		75	µg/Kg-dry	1	2/19/2020 05:19 PM
Methyl iodide	ND		630	µg/Kg-dry	1	2/19/2020 05:19 PM
Methyl tert-butyl ether	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
Methylene chloride	ND		310	µg/Kg-dry	1	2/19/2020 05:19 PM
Naphthalene	**560**		**130**	**µg/Kg-dry**	1	2/19/2020 05:19 PM
n-Propylbenzene	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
o-Xylene	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
Styrene	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
Tetrachloroethene	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
Toluene	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
trans-1,2-Dichloroethene	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
trans-1,3-Dichloropropene	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
trans-1,4-Dichloro-2-butene	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
Trichloroethene	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
Trichlorofluoromethane	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
Vinyl acetate	ND		310	µg/Kg-dry	1	2/19/2020 05:19 PM
Vinyl chloride	ND		38	µg/Kg-dry	1	2/19/2020 05:19 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	2/19/2020 05:19 PM
Surr: 1,2-Dichloroethane-d4	*106*		*70-130*	*%REC*	1	2/19/2020 05:19 PM
Surr: 4-Bromofluorobenzene	*106*		*70-130*	*%REC*	1	2/19/2020 05:19 PM
Surr: Dibromofluoromethane	*95.4*		*70-130*	*%REC*	1	2/19/2020 05:19 PM
Surr: Toluene-d8	*100*		*70-130*	*%REC*	1	2/19/2020 05:19 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/13/20 14:45 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client:	PM Environmental		
Project:	Sediment Project 01-5303-3-0001	**Work Order:**	20020850
Sample ID:	S-5 14-15'	**Lab ID:**	20020850-19
Collection Date:	2/12/2020 03:25 PM	**Matrix:**	SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**0.0078**		**0.0065**	**mg/Kg-dry**	1	2/18/2020 10:45 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**24**		**0.10**	**% of sample**	1	2/14/2020 10:18 AM
PHOSPHORUS, TOTAL			**E365.1 R2.0**	Prep: E365.1 R2.0 2/13/20 09:25		Analyst: **CAC**
Phosphorus, Total	ND		270	mg/Kg-dry	10	2/13/2020 04:39 PM
PH			**SW9045D**	Prep: EXTRACT 2/13/20 10:29		Analyst: **DNW**
pH	**11.1**		**0.100**	**s.u.**	1	2/13/2020 03:10 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-5 17-22'
Collection Date: 2/12/2020 03:30 PM

Work Order: 20020850
Lab ID: 20020850-20
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/17/20 15:44		Analyst: **RM**
Aroclor 1016	ND		79	µg/Kg-dry	1	2/17/2020 09:31 PM
Aroclor 1221	ND		79	µg/Kg-dry	1	2/17/2020 09:31 PM
Aroclor 1232	ND		79	µg/Kg-dry	1	2/17/2020 09:31 PM
Aroclor 1242	ND		79	µg/Kg-dry	1	2/17/2020 09:31 PM
Aroclor 1248	ND		79	µg/Kg-dry	1	2/17/2020 09:31 PM
Aroclor 1254	ND		79	µg/Kg-dry	1	2/17/2020 09:31 PM
Aroclor 1260	ND		79	µg/Kg-dry	1	2/17/2020 09:31 PM
Aroclor 1262	ND		79	µg/Kg-dry	1	2/17/2020 09:31 PM
Aroclor 1268	ND		79	µg/Kg-dry	1	2/17/2020 09:31 PM
Surr: Decachlorobiphenyl	*45.2*		*40-140*	*%REC*	1	2/17/2020 09:31 PM
Surr: Tetrachloro-m-xylene	*58.8*		*45-124*	*%REC*	1	2/17/2020 09:31 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/18/20 13:11		Analyst: **RSH**
Mercury	ND		0.024	mg/Kg-dry	1	2/18/2020 06:34 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/17/20 17:55		Analyst: **DSC**
Arsenic	**6.2**		**0.50**	**mg/Kg-dry**	1	2/18/2020 08:30 PM
Barium	**76**	B	**0.50**	**mg/Kg-dry**	1	2/18/2020 08:30 PM
Cadmium	ND		0.20	mg/Kg-dry	1	2/18/2020 08:30 PM
Chromium	**13**		**0.50**	**mg/Kg-dry**	1	2/18/2020 08:30 PM
Copper	**17**	B	**0.50**	**mg/Kg-dry**	1	2/18/2020 08:30 PM
Lead	**9.3**	B	**0.50**	**mg/Kg-dry**	1	2/18/2020 08:30 PM
Nickel	**22**		**0.50**	**mg/Kg-dry**	1	2/18/2020 08:30 PM
Selenium	ND		0.50	mg/Kg-dry	1	2/18/2020 08:30 PM
Silver	ND		0.50	mg/Kg-dry	1	2/18/2020 08:30 PM
Thorium	**4.0**		**0.50**	**mg/Kg-dry**	1	2/18/2020 08:30 PM
Uranium	**1.5**		**0.50**	**mg/Kg-dry**	1	2/18/2020 08:30 PM
Zinc	**52**	B	**10**	**mg/Kg-dry**	10	2/19/2020 04:12 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/19/20 18:03		Analyst: **EEW**
1-Methylnaphthalene	**6.5**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:07 AM
2-Chloronaphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 04:07 AM
2-Methylnaphthalene	**6.9**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:07 AM
Acenaphthene	ND		5.0	µg/Kg-dry	1	2/20/2020 04:07 AM
Acenaphthylene	ND		5.0	µg/Kg-dry	1	2/20/2020 04:07 AM
Anthracene	**12**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:07 AM
Benzo(a)anthracene	**7.1**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:07 AM
Benzo(a)pyrene	ND		5.0	µg/Kg-dry	1	2/20/2020 04:07 AM
Benzo(b)fluoranthene	ND		5.0	µg/Kg-dry	1	2/20/2020 04:07 AM
Benzo(g,h,i)perylene	ND		5.0	µg/Kg-dry	1	2/20/2020 04:07 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: S-5 17-22' **Lab ID:** 20020850-20
Collection Date: 2/12/2020 03:30 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		5.0	µg/Kg-dry	1	2/20/2020 04:07 AM
Chrysene	ND		5.0	µg/Kg-dry	1	2/20/2020 04:07 AM
Dibenzo(a,h)anthracene	ND		5.0	µg/Kg-dry	1	2/20/2020 04:07 AM
Fluoranthene	**18**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:07 AM
Fluorene	**9.5**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:07 AM
Indeno(1,2,3-cd)pyrene	ND		5.0	µg/Kg-dry	1	2/20/2020 04:07 AM
Naphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 04:07 AM
Phenanthrene	**39**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:07 AM
Pyrene	**11**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:07 AM
Surr: 2-Fluorobiphenyl	*91.8*		*20-140*	*%REC*	1	2/20/2020 04:07 AM
Surr: 4-Terphenyl-d14	*88.1*		*22-172*	*%REC*	1	2/20/2020 04:07 AM
Surr: Nitrobenzene-d5	*71.2*		*28-140*	*%REC*	1	2/20/2020 04:07 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/13/20 11:51		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
1,1,1-Trichloroethane	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
1,1,2,2-Tetrachloroethane	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
1,1,2-Trichloroethane	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
1,1,2-Trichlorotrifluoroethane	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
1,1-Dichloroethane	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
1,1-Dichloroethene	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
1,2,3-Trichloropropane	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
1,2,4-Trichlorobenzene	ND		120	µg/Kg-dry	1	2/19/2020 09:07 PM
1,2,4-Trimethylbenzene	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
1,2-Dibromo-3-chloropropane	ND		120	µg/Kg-dry	1	2/19/2020 09:07 PM
1,2-Dibromoethane	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
1,2-Dichlorobenzene	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
1,2-Dichloroethane	ND		120	µg/Kg-dry	1	2/19/2020 09:07 PM
1,2-Dichloropropane	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
1,3,5-Trimethylbenzene	ND		120	µg/Kg-dry	1	2/19/2020 09:07 PM
1,3-Dichlorobenzene	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
1,4-Dichlorobenzene	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
2-Butanone	ND		240	µg/Kg-dry	1	2/19/2020 09:07 PM
2-Hexanone	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
2-Methylnaphthalene	ND		120	µg/Kg-dry	1	2/19/2020 09:07 PM
4-Methyl-2-pentanone	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
Acetone	ND		120	µg/Kg-dry	1	2/19/2020 09:07 PM
Acrylonitrile	ND		120	µg/Kg-dry	1	2/19/2020 09:07 PM
Benzene	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
Bromochloromethane	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
Bromodichloromethane	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-5 17-22'
Collection Date: 2/12/2020 03:30 PM

Work Order: 20020850
Lab ID: 20020850-20
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
Bromomethane	ND		120	µg/Kg-dry	1	2/19/2020 09:07 PM
Carbon disulfide	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
Carbon tetrachloride	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
Chlorobenzene	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
Chloroethane	ND		120	µg/Kg-dry	1	2/19/2020 09:07 PM
Chloroform	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
Chloromethane	ND		120	µg/Kg-dry	1	2/19/2020 09:07 PM
cis-1,2-Dichloroethene	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
cis-1,3-Dichloropropene	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
Dibromochloromethane	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
Dibromomethane	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
Dichlorodifluoromethane	ND		120	µg/Kg-dry	1	2/19/2020 09:07 PM
Diethyl ether	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
Ethylbenzene	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
Hexachloroethane	ND		120	µg/Kg-dry	1	2/19/2020 09:07 PM
Isopropylbenzene	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
m,p-Xylene	ND		73	µg/Kg-dry	1	2/19/2020 09:07 PM
Methyl iodide	ND		610	µg/Kg-dry	1	2/19/2020 09:07 PM
Methyl tert-butyl ether	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
Methylene chloride	ND		300	µg/Kg-dry	1	2/19/2020 09:07 PM
Naphthalene	ND		120	µg/Kg-dry	1	2/19/2020 09:07 PM
n-Propylbenzene	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
o-Xylene	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
Styrene	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
Tetrachloroethene	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
Toluene	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
trans-1,2-Dichloroethene	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
trans-1,3-Dichloropropene	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
trans-1,4-Dichloro-2-butene	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
Trichloroethene	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
Trichlorofluoromethane	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
Vinyl acetate	ND		300	µg/Kg-dry	1	2/19/2020 09:07 PM
Vinyl chloride	ND		36	µg/Kg-dry	1	2/19/2020 09:07 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	2/19/2020 09:07 PM
Surr: 1,2-Dichloroethane-d4	*107*		*70-130*	*%REC*	1	2/19/2020 09:07 PM
Surr: 4-Bromofluorobenzene	*102*		*70-130*	*%REC*	1	2/19/2020 09:07 PM
Surr: Dibromofluoromethane	*93.7*		*70-130*	*%REC*	1	2/19/2020 09:07 PM
Surr: Toluene-d8	*99.1*		*70-130*	*%REC*	1	2/19/2020 09:07 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/13/20 15:25 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20020850
Sample ID: S-5 17-22'
Lab ID: 20020850-20
Collection Date: 2/12/2020 03:30 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**0.0084**		**0.0060**	**mg/Kg-dry**	1	2/18/2020 10:45 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**18**		**0.10**	**% of sample**	1	2/14/2020 10:18 AM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/13/20 09:25	Analyst: **CAC**
Phosphorus, Total	**320**		**110**	**mg/Kg-dry**	5	2/13/2020 04:42 PM
PH			**SW9045D**		Prep: EXTRACT 2/13/20 10:29	Analyst: **DNW**
pH	**8.68**		**0.100**	**s.u.**	1	2/13/2020 03:10 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-13 0-5'
Collection Date: 2/11/2020 10:45 AM

Work Order: 20020850
Lab ID: 20020850-21
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/17/20 15:44		Analyst: **RM**
Aroclor 1016	ND		360	µg/Kg-dry	1	2/17/2020 09:46 PM
Aroclor 1221	ND		360	µg/Kg-dry	1	2/17/2020 09:46 PM
Aroclor 1232	ND		360	µg/Kg-dry	1	2/17/2020 09:46 PM
Aroclor 1242	ND		360	µg/Kg-dry	1	2/17/2020 09:46 PM
Aroclor 1248	ND		360	µg/Kg-dry	1	2/17/2020 09:46 PM
Aroclor 1254	ND		360	µg/Kg-dry	1	2/17/2020 09:46 PM
Aroclor 1260	ND		360	µg/Kg-dry	1	2/17/2020 09:46 PM
Aroclor 1262	ND		360	µg/Kg-dry	1	2/17/2020 09:46 PM
Aroclor 1268	ND		360	µg/Kg-dry	1	2/17/2020 09:46 PM
Surr: Decachlorobiphenyl	*79.2*		*40-140*	*%REC*	1	2/17/2020 09:46 PM
Surr: Tetrachloro-m-xylene	*80.6*		*45-124*	*%REC*	1	2/17/2020 09:46 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/18/20 13:11		Analyst: **RSH**
Mercury	**0.097**		**0.024**	**mg/Kg-dry**	1	2/18/2020 06:36 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/17/20 17:55		Analyst: **DSC**
Arsenic	**5.9**		**0.46**	**mg/Kg-dry**	1	2/18/2020 08:32 PM
Barium	**43**	B	**0.46**	**mg/Kg-dry**	1	2/18/2020 08:32 PM
Cadmium	**2.0**		**0.18**	**mg/Kg-dry**	1	2/18/2020 08:32 PM
Chromium	**30**		**0.46**	**mg/Kg-dry**	1	2/18/2020 08:32 PM
Copper	**1,000**	B	**46**	**mg/Kg-dry**	100	2/19/2020 04:14 PM
Lead	**150**	B	**0.46**	**mg/Kg-dry**	1	2/18/2020 08:32 PM
Nickel	**30**		**0.46**	**mg/Kg-dry**	1	2/18/2020 08:32 PM
Selenium	ND		0.46	mg/Kg-dry	1	2/18/2020 08:32 PM
Silver	ND		0.46	mg/Kg-dry	1	2/18/2020 08:32 PM
Thorium	**3.0**		**0.46**	**mg/Kg-dry**	1	2/18/2020 08:32 PM
Uranium	**1.3**		**0.46**	**mg/Kg-dry**	1	2/18/2020 08:32 PM
Zinc	**1,100**	B	**92**	**mg/Kg-dry**	100	2/19/2020 04:14 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/19/20 18:03		Analyst: **EEW**
1-Methylnaphthalene	**110**		**5.2**	**µg/Kg-dry**	1	2/20/2020 04:22 AM
2-Chloronaphthalene	ND		5.2	µg/Kg-dry	1	2/20/2020 04:22 AM
2-Methylnaphthalene	**53**		**5.2**	**µg/Kg-dry**	1	2/20/2020 04:22 AM
Acenaphthene	**230**		**5.2**	**µg/Kg-dry**	1	2/20/2020 04:22 AM
Acenaphthylene	**36**		**5.2**	**µg/Kg-dry**	1	2/20/2020 04:22 AM
Anthracene	**200**		**5.2**	**µg/Kg-dry**	1	2/20/2020 04:22 AM
Benzo(a)anthracene	**290**		**5.2**	**µg/Kg-dry**	1	2/20/2020 04:22 AM
Benzo(a)pyrene	**200**		**5.2**	**µg/Kg-dry**	1	2/20/2020 04:22 AM
Benzo(b)fluoranthene	**250**		**5.2**	**µg/Kg-dry**	1	2/20/2020 04:22 AM
Benzo(g,h,i)perylene	**47**		**5.2**	**µg/Kg-dry**	1	2/20/2020 04:22 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: S-13 0-5' **Lab ID:** 20020850-21
Collection Date: 2/11/2020 10:45 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**60**		**5.2**	**µg/Kg-dry**	1	2/20/2020 04:22 AM
Chrysene	**300**		**5.2**	**µg/Kg-dry**	1	2/20/2020 04:22 AM
Dibenzo(a,h)anthracene	**13**		**5.2**	**µg/Kg-dry**	1	2/20/2020 04:22 AM
Fluoranthene	**570**		**5.2**	**µg/Kg-dry**	1	2/20/2020 04:22 AM
Fluorene	**150**		**5.2**	**µg/Kg-dry**	1	2/20/2020 04:22 AM
Indeno(1,2,3-cd)pyrene	**61**		**5.2**	**µg/Kg-dry**	1	2/20/2020 04:22 AM
Naphthalene	**59**		**5.2**	**µg/Kg-dry**	1	2/20/2020 04:22 AM
Phenanthrene	**480**		**5.2**	**µg/Kg-dry**	1	2/20/2020 04:22 AM
Pyrene	**460**		**5.2**	**µg/Kg-dry**	1	2/20/2020 04:22 AM
Surr: 2-Fluorobiphenyl	*96.3*		*20-140*	*%REC*	1	2/20/2020 04:22 AM
Surr: 4-Terphenyl-d14	*89.5*		*22-172*	*%REC*	1	2/20/2020 04:22 AM
Surr: Nitrobenzene-d5	*80.5*		*28-140*	*%REC*	1	2/20/2020 04:22 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/13/20 11:51		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
1,1,1-Trichloroethane	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
1,1,2,2-Tetrachloroethane	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
1,1,2-Trichloroethane	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
1,1,2-Trichlorotrifluoroethane	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
1,1-Dichloroethane	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
1,1-Dichloroethene	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
1,2,3-Trichloropropane	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
1,2,4-Trichlorobenzene	ND		190	µg/Kg-dry	1	2/19/2020 09:23 PM
1,2,4-Trimethylbenzene	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
1,2-Dibromo-3-chloropropane	ND		190	µg/Kg-dry	1	2/19/2020 09:23 PM
1,2-Dibromoethane	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
1,2-Dichlorobenzene	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
1,2-Dichloroethane	ND		190	µg/Kg-dry	1	2/19/2020 09:23 PM
1,2-Dichloropropane	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
1,3,5-Trimethylbenzene	ND		190	µg/Kg-dry	1	2/19/2020 09:23 PM
1,3-Dichlorobenzene	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
1,4-Dichlorobenzene	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
2-Butanone	ND		370	µg/Kg-dry	1	2/19/2020 09:23 PM
2-Hexanone	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
2-Methylnaphthalene	**200**		**190**	**µg/Kg-dry**	1	2/19/2020 09:23 PM
4-Methyl-2-pentanone	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
Acetone	ND		190	µg/Kg-dry	1	2/19/2020 09:23 PM
Acrylonitrile	ND		190	µg/Kg-dry	1	2/19/2020 09:23 PM
Benzene	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
Bromochloromethane	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
Bromodichloromethane	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: S-13 0-5' **Lab ID:** 20020850-21
Collection Date: 2/11/2020 10:45 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
Bromomethane	ND		190	µg/Kg-dry	1	2/19/2020 09:23 PM
Carbon disulfide	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
Carbon tetrachloride	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
Chlorobenzene	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
Chloroethane	ND		190	µg/Kg-dry	1	2/19/2020 09:23 PM
Chloroform	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
Chloromethane	ND		190	µg/Kg-dry	1	2/19/2020 09:23 PM
cis-1,2-Dichloroethene	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
cis-1,3-Dichloropropene	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
Dibromochloromethane	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
Dibromomethane	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
Dichlorodifluoromethane	ND		190	µg/Kg-dry	1	2/19/2020 09:23 PM
Diethyl ether	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
Ethylbenzene	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
Hexachloroethane	ND		190	µg/Kg-dry	1	2/19/2020 09:23 PM
Isopropylbenzene	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
m,p-Xylene	ND		110	µg/Kg-dry	1	2/19/2020 09:23 PM
Methyl iodide	ND		930	µg/Kg-dry	1	2/19/2020 09:23 PM
Methyl tert-butyl ether	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
Methylene chloride	ND		460	µg/Kg-dry	1	2/19/2020 09:23 PM
Naphthalene	**750**		**190**	**µg/Kg-dry**	1	2/19/2020 09:23 PM
n-Propylbenzene	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
o-Xylene	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
Styrene	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
Tetrachloroethene	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
Toluene	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
trans-1,2-Dichloroethene	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
trans-1,3-Dichloropropene	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
trans-1,4-Dichloro-2-butene	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
Trichloroethene	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
Trichlorofluoromethane	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
Vinyl acetate	ND		460	µg/Kg-dry	1	2/19/2020 09:23 PM
Vinyl chloride	ND		56	µg/Kg-dry	1	2/19/2020 09:23 PM
Xylenes, Total	ND		170	µg/Kg-dry	1	2/19/2020 09:23 PM
Surr: 1,2-Dichloroethane-d4	*103*		*70-130*	*%REC*	1	2/19/2020 09:23 PM
Surr: 4-Bromofluorobenzene	*96.5*		*70-130*	*%REC*	1	2/19/2020 09:23 PM
Surr: Dibromofluoromethane	*95.6*		*70-130*	*%REC*	1	2/19/2020 09:23 PM
Surr: Toluene-d8	*95.1*		*70-130*	*%REC*	1	2/19/2020 09:23 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/13/20 10:40 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20020850
Sample ID: S-13 0-5'
Lab ID: 20020850-21
Collection Date: 2/11/2020 10:45 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**0.018**		**0.0066**	**mg/Kg-dry**	1	2/18/2020 10:45 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**24**		**0.10**	**% of sample**	1	2/14/2020 04:09 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/13/20 09:25	Analyst: **CAC**
Phosphorus, Total	**450**		**160**	**mg/Kg-dry**	5	2/13/2020 04:43 PM
PH			**SW9045D**		Prep: EXTRACT 2/13/20 10:29	Analyst: **DNW**
pH	**8.57**		**0.100**	**s.u.**	1	2/13/2020 03:10 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-12 0-5'
Collection Date: 2/11/2020 12:10 PM

Work Order: 20020850
Lab ID: 20020850-22
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/17/20 15:44		Analyst: **RM**
Aroclor 1016	ND		290	µg/Kg-dry	1	2/17/2020 10:01 PM
Aroclor 1221	ND		290	µg/Kg-dry	1	2/17/2020 10:01 PM
Aroclor 1232	ND		290	µg/Kg-dry	1	2/17/2020 10:01 PM
Aroclor 1242	ND		290	µg/Kg-dry	1	2/17/2020 10:01 PM
Aroclor 1248	ND		290	µg/Kg-dry	1	2/17/2020 10:01 PM
Aroclor 1254	ND		290	µg/Kg-dry	1	2/17/2020 10:01 PM
Aroclor 1260	ND		290	µg/Kg-dry	1	2/17/2020 10:01 PM
Aroclor 1262	ND		290	µg/Kg-dry	1	2/17/2020 10:01 PM
Aroclor 1268	ND		290	µg/Kg-dry	1	2/17/2020 10:01 PM
Surr: Decachlorobiphenyl	*84.2*		*40-140*	*%REC*	1	2/17/2020 10:01 PM
Surr: Tetrachloro-m-xylene	*81.0*		*45-124*	*%REC*	1	2/17/2020 10:01 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/18/20 13:11		Analyst: **RSH**
Mercury	**0.046**		**0.021**	**mg/Kg-dry**	1	2/18/2020 06:38 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/17/20 17:55		Analyst: **DSC**
Arsenic	**6.7**		**0.44**	**mg/Kg-dry**	1	2/18/2020 08:33 PM
Barium	**63**	B	**0.44**	**mg/Kg-dry**	1	2/18/2020 08:33 PM
Cadmium	ND		0.18	mg/Kg-dry	1	2/18/2020 08:33 PM
Chromium	**25**		**0.44**	**mg/Kg-dry**	1	2/18/2020 08:33 PM
Copper	**120**	B	**4.4**	**mg/Kg-dry**	10	2/19/2020 04:16 PM
Lead	**41**	B	**0.44**	**mg/Kg-dry**	1	2/18/2020 08:33 PM
Nickel	**25**		**0.44**	**mg/Kg-dry**	1	2/18/2020 08:33 PM
Selenium	ND		0.44	mg/Kg-dry	1	2/18/2020 08:33 PM
Silver	ND		0.44	mg/Kg-dry	1	2/18/2020 08:33 PM
Thorium	**3.7**		**0.44**	**mg/Kg-dry**	1	2/18/2020 08:33 PM
Uranium	**1.6**		**0.44**	**mg/Kg-dry**	1	2/18/2020 08:33 PM
Zinc	**82**	B	**8.8**	**mg/Kg-dry**	10	2/19/2020 04:16 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/19/20 18:03		Analyst: **EEW**
1-Methylnaphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 04:38 AM
2-Chloronaphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 04:38 AM
2-Methylnaphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 04:38 AM
Acenaphthene	**32**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:38 AM
Acenaphthylene	**5.2**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:38 AM
Anthracene	**18**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:38 AM
Benzo(a)anthracene	**47**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:38 AM
Benzo(a)pyrene	**34**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:38 AM
Benzo(b)fluoranthene	**35**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:38 AM
Benzo(g,h,i)perylene	**8.8**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:38 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-12 0-5'
Collection Date: 2/11/2020 12:10 PM

Work Order: 20020850
Lab ID: 20020850-22
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**11**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:38 AM
Chrysene	**41**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:38 AM
Dibenzo(a,h)anthracene	ND		5.0	µg/Kg-dry	1	2/20/2020 04:38 AM
Fluoranthene	**120**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:38 AM
Fluorene	**13**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:38 AM
Indeno(1,2,3-cd)pyrene	**10**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:38 AM
Naphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 04:38 AM
Phenanthrene	**30**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:38 AM
Pyrene	**97**		**5.0**	**µg/Kg-dry**	1	2/20/2020 04:38 AM
Surr: 2-Fluorobiphenyl	*97.9*		*20-140*	*%REC*	1	2/20/2020 04:38 AM
Surr: 4-Terphenyl-d14	*94.6*		*22-172*	*%REC*	1	2/20/2020 04:38 AM
Surr: Nitrobenzene-d5	*83.2*		*28-140*	*%REC*	1	2/20/2020 04:38 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/13/20 11:51		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
1,1,1-Trichloroethane	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
1,1,2,2-Tetrachloroethane	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
1,1,2-Trichloroethane	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
1,1,2-Trichlorotrifluoroethane	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
1,1-Dichloroethane	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
1,1-Dichloroethene	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
1,2,3-Trichloropropane	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
1,2,4-Trichlorobenzene	ND		180	µg/Kg-dry	1	2/19/2020 09:40 PM
1,2,4-Trimethylbenzene	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
1,2-Dibromo-3-chloropropane	ND		180	µg/Kg-dry	1	2/19/2020 09:40 PM
1,2-Dibromoethane	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
1,2-Dichlorobenzene	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
1,2-Dichloroethane	ND		180	µg/Kg-dry	1	2/19/2020 09:40 PM
1,2-Dichloropropane	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
1,3,5-Trimethylbenzene	ND		180	µg/Kg-dry	1	2/19/2020 09:40 PM
1,3-Dichlorobenzene	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
1,4-Dichlorobenzene	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
2-Butanone	ND		370	µg/Kg-dry	1	2/19/2020 09:40 PM
2-Hexanone	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
2-Methylnaphthalene	ND		180	µg/Kg-dry	1	2/19/2020 09:40 PM
4-Methyl-2-pentanone	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
Acetone	ND		180	µg/Kg-dry	1	2/19/2020 09:40 PM
Acrylonitrile	ND		180	µg/Kg-dry	1	2/19/2020 09:40 PM
Benzene	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
Bromochloromethane	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
Bromodichloromethane	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: S-12 0-5' **Lab ID:** 20020850-22
Collection Date: 2/11/2020 12:10 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
Bromomethane	ND		180	µg/Kg-dry	1	2/19/2020 09:40 PM
Carbon disulfide	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
Carbon tetrachloride	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
Chlorobenzene	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
Chloroethane	ND		180	µg/Kg-dry	1	2/19/2020 09:40 PM
Chloroform	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
Chloromethane	ND		180	µg/Kg-dry	1	2/19/2020 09:40 PM
cis-1,2-Dichloroethene	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
cis-1,3-Dichloropropene	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
Dibromochloromethane	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
Dibromomethane	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
Dichlorodifluoromethane	ND		180	µg/Kg-dry	1	2/19/2020 09:40 PM
Diethyl ether	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
Ethylbenzene	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
Hexachloroethane	ND		180	µg/Kg-dry	1	2/19/2020 09:40 PM
Isopropylbenzene	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
m,p-Xylene	ND		110	µg/Kg-dry	1	2/19/2020 09:40 PM
Methyl iodide	ND		920	µg/Kg-dry	1	2/19/2020 09:40 PM
Methyl tert-butyl ether	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
Methylene chloride	ND		460	µg/Kg-dry	1	2/19/2020 09:40 PM
Naphthalene	ND		180	µg/Kg-dry	1	2/19/2020 09:40 PM
n-Propylbenzene	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
o-Xylene	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
Styrene	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
Tetrachloroethene	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
Toluene	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
trans-1,2-Dichloroethene	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
trans-1,3-Dichloropropene	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
trans-1,4-Dichloro-2-butene	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
Trichloroethene	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
Trichlorofluoromethane	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
Vinyl acetate	ND		460	µg/Kg-dry	1	2/19/2020 09:40 PM
Vinyl chloride	ND		55	µg/Kg-dry	1	2/19/2020 09:40 PM
Xylenes, Total	ND		170	µg/Kg-dry	1	2/19/2020 09:40 PM
Surr: 1,2-Dichloroethane-d4	*108*		*70-130*	*%REC*	1	2/19/2020 09:40 PM
Surr: 4-Bromofluorobenzene	*100*		*70-130*	*%REC*	1	2/19/2020 09:40 PM
Surr: Dibromofluoromethane	*93.3*		*70-130*	*%REC*	1	2/19/2020 09:40 PM
Surr: Toluene-d8	*98.0*		*70-130*	*%REC*	1	2/19/2020 09:40 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/13/20 10:46 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-12 0-5'
Collection Date: 2/11/2020 12:10 PM

Work Order: 20020850
Lab ID: 20020850-22
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**0.026**		**0.0051**	**mg/Kg-dry**	1	2/18/2020 10:45 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**21**		**0.10**	**% of sample**	1	2/14/2020 04:09 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/13/20 09:25	Analyst: **CAC**
Phosphorus, Total	**460**		**190**	**mg/Kg-dry**	10	2/13/2020 04:44 PM
PH			**SW9045D**		Prep: EXTRACT 2/13/20 10:29	Analyst: **DNW**
pH	**8.72**		**0.100**	**s.u.**	1	2/13/2020 03:10 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-11 0-5'
Collection Date: 2/11/2020 01:50 PM

Work Order: 20020850
Lab ID: 20020850-23
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/17/20 15:44		Analyst: **RM**
Aroclor 1016	ND		370	µg/Kg-dry	1	2/17/2020 10:17 PM
Aroclor 1221	ND		370	µg/Kg-dry	1	2/17/2020 10:17 PM
Aroclor 1232	ND		370	µg/Kg-dry	1	2/17/2020 10:17 PM
Aroclor 1242	ND		370	µg/Kg-dry	1	2/17/2020 10:17 PM
Aroclor 1248	ND		370	µg/Kg-dry	1	2/17/2020 10:17 PM
Aroclor 1254	ND		370	µg/Kg-dry	1	2/17/2020 10:17 PM
Aroclor 1260	ND		370	µg/Kg-dry	1	2/17/2020 10:17 PM
Aroclor 1262	ND		370	µg/Kg-dry	1	2/17/2020 10:17 PM
Aroclor 1268	ND		370	µg/Kg-dry	1	2/17/2020 10:17 PM
Surr: Decachlorobiphenyl	*85.0*		*40-140*	*%REC*	1	2/17/2020 10:17 PM
Surr: Tetrachloro-m-xylene	*85.3*		*45-124*	*%REC*	1	2/17/2020 10:17 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/18/20 13:20		Analyst: **RSH**
Mercury	**0.14**		**0.025**	**mg/Kg-dry**	1	2/18/2020 05:13 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/17/20 17:55		Analyst: **DSC**
Arsenic	**4.2**		**0.49**	**mg/Kg-dry**	1	2/18/2020 08:35 PM
Barium	**150**	B	**0.49**	**mg/Kg-dry**	1	2/18/2020 08:35 PM
Cadmium	**0.27**		**0.20**	**mg/Kg-dry**	1	2/18/2020 08:35 PM
Chromium	**40**		**0.49**	**mg/Kg-dry**	1	2/18/2020 08:35 PM
Copper	**170**	B	**4.9**	**mg/Kg-dry**	10	2/19/2020 04:17 PM
Lead	**51**	B	**0.49**	**mg/Kg-dry**	1	2/18/2020 08:35 PM
Nickel	**29**		**0.49**	**mg/Kg-dry**	1	2/18/2020 08:35 PM
Selenium	ND		0.49	mg/Kg-dry	1	2/18/2020 08:35 PM
Silver	ND		0.49	mg/Kg-dry	1	2/18/2020 08:35 PM
Thorium	**5.4**		**0.49**	**mg/Kg-dry**	1	2/18/2020 08:35 PM
Uranium	**0.84**		**0.49**	**mg/Kg-dry**	1	2/18/2020 08:35 PM
Zinc	**140**	B	**9.9**	**mg/Kg-dry**	10	2/19/2020 04:17 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/19/20 18:03		Analyst: **EEW**
1-Methylnaphthalene	**12**		**6.3**	**µg/Kg-dry**	1	2/20/2020 04:53 AM
2-Chloronaphthalene	ND		6.3	µg/Kg-dry	1	2/20/2020 04:53 AM
2-Methylnaphthalene	ND		6.3	µg/Kg-dry	1	2/20/2020 04:53 AM
Acenaphthene	**25**		**6.3**	**µg/Kg-dry**	1	2/20/2020 04:53 AM
Acenaphthylene	ND		6.3	µg/Kg-dry	1	2/20/2020 04:53 AM
Anthracene	**29**		**6.3**	**µg/Kg-dry**	1	2/20/2020 04:53 AM
Benzo(a)anthracene	**42**		**6.3**	**µg/Kg-dry**	1	2/20/2020 04:53 AM
Benzo(a)pyrene	**29**		**6.3**	**µg/Kg-dry**	1	2/20/2020 04:53 AM
Benzo(b)fluoranthene	**36**		**6.3**	**µg/Kg-dry**	1	2/20/2020 04:53 AM
Benzo(g,h,i)perylene	**7.9**		**6.3**	**µg/Kg-dry**	1	2/20/2020 04:53 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001 **Work Order:** 20020850
Sample ID: S-11 0-5' **Lab ID:** 20020850-23
Collection Date: 2/11/2020 01:50 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**11**		**6.3**	**µg/Kg-dry**	1	2/20/2020 04:53 AM
Chrysene	**37**		**6.3**	**µg/Kg-dry**	1	2/20/2020 04:53 AM
Dibenzo(a,h)anthracene	ND		6.3	µg/Kg-dry	1	2/20/2020 04:53 AM
Fluoranthene	**100**		**6.3**	**µg/Kg-dry**	1	2/20/2020 04:53 AM
Fluorene	**18**		**6.3**	**µg/Kg-dry**	1	2/20/2020 04:53 AM
Indeno(1,2,3-cd)pyrene	**8.4**		**6.3**	**µg/Kg-dry**	1	2/20/2020 04:53 AM
Naphthalene	ND		6.3	µg/Kg-dry	1	2/20/2020 04:53 AM
Phenanthrene	**48**		**6.3**	**µg/Kg-dry**	1	2/20/2020 04:53 AM
Pyrene	**71**		**6.3**	**µg/Kg-dry**	1	2/20/2020 04:53 AM
Surr: 2-Fluorobiphenyl	*98.5*		*20-140*	*%REC*	1	2/20/2020 04:53 AM
Surr: 4-Terphenyl-d14	*95.6*		*22-172*	*%REC*	1	2/20/2020 04:53 AM
Surr: Nitrobenzene-d5	*80.0*		*28-140*	*%REC*	1	2/20/2020 04:53 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/13/20 11:51		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
1,1,1-Trichloroethane	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
1,1,2,2-Tetrachloroethane	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
1,1,2-Trichloroethane	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
1,1,2-Trichlorotrifluoroethane	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
1,1-Dichloroethane	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
1,1-Dichloroethene	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
1,2,3-Trichloropropane	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
1,2,4-Trichlorobenzene	ND		200	µg/Kg-dry	1	2/19/2020 09:56 PM
1,2,4-Trimethylbenzene	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
1,2-Dibromo-3-chloropropane	ND		200	µg/Kg-dry	1	2/19/2020 09:56 PM
1,2-Dibromoethane	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
1,2-Dichlorobenzene	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
1,2-Dichloroethane	ND		200	µg/Kg-dry	1	2/19/2020 09:56 PM
1,2-Dichloropropane	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
1,3,5-Trimethylbenzene	ND		200	µg/Kg-dry	1	2/19/2020 09:56 PM
1,3-Dichlorobenzene	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
1,4-Dichlorobenzene	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
2-Butanone	ND		410	µg/Kg-dry	1	2/19/2020 09:56 PM
2-Hexanone	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
2-Methylnaphthalene	ND		200	µg/Kg-dry	1	2/19/2020 09:56 PM
4-Methyl-2-pentanone	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
Acetone	ND		200	µg/Kg-dry	1	2/19/2020 09:56 PM
Acrylonitrile	ND		200	µg/Kg-dry	1	2/19/2020 09:56 PM
Benzene	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
Bromochloromethane	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
Bromodichloromethane	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-11 0-5'
Collection Date: 2/11/2020 01:50 PM

Work Order: 20020850
Lab ID: 20020850-23
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
Bromomethane	ND		200	µg/Kg-dry	1	2/19/2020 09:56 PM
Carbon disulfide	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
Carbon tetrachloride	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
Chlorobenzene	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
Chloroethane	ND		200	µg/Kg-dry	1	2/19/2020 09:56 PM
Chloroform	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
Chloromethane	ND		200	µg/Kg-dry	1	2/19/2020 09:56 PM
cis-1,2-Dichloroethene	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
cis-1,3-Dichloropropene	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
Dibromochloromethane	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
Dibromomethane	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
Dichlorodifluoromethane	ND		200	µg/Kg-dry	1	2/19/2020 09:56 PM
Diethyl ether	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
Ethylbenzene	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
Hexachloroethane	ND		200	µg/Kg-dry	1	2/19/2020 09:56 PM
Isopropylbenzene	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
m,p-Xylene	ND		120	µg/Kg-dry	1	2/19/2020 09:56 PM
Methyl iodide	ND		1,000	µg/Kg-dry	1	2/19/2020 09:56 PM
Methyl tert-butyl ether	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
Methylene chloride	ND		510	µg/Kg-dry	1	2/19/2020 09:56 PM
Naphthalene	ND		200	µg/Kg-dry	1	2/19/2020 09:56 PM
n-Propylbenzene	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
o-Xylene	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
Styrene	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
Tetrachloroethene	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
Toluene	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
trans-1,2-Dichloroethene	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
trans-1,3-Dichloropropene	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
trans-1,4-Dichloro-2-butene	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
Trichloroethene	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
Trichlorofluoromethane	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
Vinyl acetate	ND		510	µg/Kg-dry	1	2/19/2020 09:56 PM
Vinyl chloride	ND		61	µg/Kg-dry	1	2/19/2020 09:56 PM
Xylenes, Total	ND		180	µg/Kg-dry	1	2/19/2020 09:56 PM
Surr: 1,2-Dichloroethane-d4	*104*		*70-130*	*%REC*	1	2/19/2020 09:56 PM
Surr: 4-Bromofluorobenzene	*104*		*70-130*	*%REC*	1	2/19/2020 09:56 PM
Surr: Dibromofluoromethane	*95.2*		*70-130*	*%REC*	1	2/19/2020 09:56 PM
Surr: Toluene-d8	*96.6*		*70-130*	*%REC*	1	2/19/2020 09:56 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/13/20 12:34 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20020850
Sample ID: S-11 0-5'
Lab ID: 20020850-23
Collection Date: 2/11/2020 01:50 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**0.0077**		**0.0077**	**mg/Kg-dry**	1	2/18/2020 10:45 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**35**		**0.10**	**% of sample**	1	2/14/2020 04:09 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/13/20 09:25	Analyst: **CAC**
Phosphorus, Total	**530**		**260**	**mg/Kg-dry**	10	2/13/2020 04:45 PM
PH			**SW9045D**		Prep: EXTRACT 2/13/20 10:29	Analyst: **DNW**
pH	**8.57**		**0.100**	**s.u.**	1	2/13/2020 03:10 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-11 5-10'
Collection Date: 2/11/2020 02:00 PM

Work Order: 20020850
Lab ID: 20020850-24
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**	Prep: SW3546 2/17/20 15:44		Analyst: **RM**
Aroclor 1016	ND		220	µg/Kg-dry	1	2/17/2020 10:32 PM
Aroclor 1221	ND		220	µg/Kg-dry	1	2/17/2020 10:32 PM
Aroclor 1232	ND		220	µg/Kg-dry	1	2/17/2020 10:32 PM
Aroclor 1242	ND		220	µg/Kg-dry	1	2/17/2020 10:32 PM
Aroclor 1248	ND		220	µg/Kg-dry	1	2/17/2020 10:32 PM
Aroclor 1254	ND		220	µg/Kg-dry	1	2/17/2020 10:32 PM
Aroclor 1260	**240**		**220**	**µg/Kg-dry**	1	2/17/2020 10:32 PM
Aroclor 1262	ND		220	µg/Kg-dry	1	2/17/2020 10:32 PM
Aroclor 1268	ND		220	µg/Kg-dry	1	2/17/2020 10:32 PM
Surr: Decachlorobiphenyl	*60.1*		*40-140*	*%REC*	1	2/17/2020 10:32 PM
Surr: Tetrachloro-m-xylene	*64.5*		*45-124*	*%REC*	1	2/17/2020 10:32 PM
MERCURY BY CVAA			**SW7471B**	Prep: SW7471 2/18/20 13:20		Analyst: **RSH**
Mercury	**0.034**		**0.022**	**mg/Kg-dry**	1	2/18/2020 05:15 PM
METALS BY ICP-MS			**SW6020B**	Prep: SW3050B 2/17/20 17:55		Analyst: **DSC**
Arsenic	**4.0**		**0.45**	**mg/Kg-dry**	1	2/18/2020 08:37 PM
Barium	**77**	B	**0.45**	**mg/Kg-dry**	1	2/18/2020 08:37 PM
Cadmium	**0.34**		**0.18**	**mg/Kg-dry**	1	2/18/2020 08:37 PM
Chromium	**16**		**0.45**	**mg/Kg-dry**	1	2/18/2020 08:37 PM
Copper	**130**	B	**4.5**	**mg/Kg-dry**	10	2/19/2020 04:25 PM
Lead	**120**	B	**0.45**	**mg/Kg-dry**	1	2/18/2020 08:37 PM
Nickel	**20**		**0.45**	**mg/Kg-dry**	1	2/18/2020 08:37 PM
Selenium	ND		0.45	mg/Kg-dry	1	2/18/2020 08:37 PM
Silver	ND		0.45	mg/Kg-dry	1	2/18/2020 08:37 PM
Thorium	**3.8**		**0.45**	**mg/Kg-dry**	1	2/18/2020 08:37 PM
Uranium	**1.0**		**0.45**	**mg/Kg-dry**	1	2/18/2020 08:37 PM
Zinc	**220**	B	**8.9**	**mg/Kg-dry**	10	2/19/2020 04:25 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**	Prep: SW3546 2/19/20 18:03		Analyst: **EEW**
1-Methylnaphthalene	**66**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:08 AM
2-Chloronaphthalene	ND		5.0	µg/Kg-dry	1	2/20/2020 05:08 AM
2-Methylnaphthalene	**99**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:08 AM
Acenaphthene	**150**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:08 AM
Acenaphthylene	**17**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:08 AM
Anthracene	**250**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:08 AM
Benzo(a)anthracene	**260**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:08 AM
Benzo(a)pyrene	**190**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:08 AM
Benzo(b)fluoranthene	**330**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:08 AM
Benzo(g,h,i)perylene	**110**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:08 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20020850
Sample ID: S-11 5-10'
Lab ID: 20020850-24
Collection Date: 2/11/2020 02:00 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	**98**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:08 AM
Chrysene	**280**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:08 AM
Dibenzo(a,h)anthracene	**21**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:08 AM
Fluoranthene	**1,000**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:08 AM
Fluorene	**140**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:08 AM
Indeno(1,2,3-cd)pyrene	**120**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:08 AM
Naphthalene	**230**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:08 AM
Phenanthrene	**840**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:08 AM
Pyrene	**560**		**5.0**	**µg/Kg-dry**	1	2/20/2020 05:08 AM
Surr: 2-Fluorobiphenyl	*94.6*		*20-140*	*%REC*	1	2/20/2020 05:08 AM
Surr: 4-Terphenyl-d14	*83.2*		*22-172*	*%REC*	1	2/20/2020 05:08 AM
Surr: Nitrobenzene-d5	*81.5*		*28-140*	*%REC*	1	2/20/2020 05:08 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**	Prep: SW5035 2/14/20 14:49		Analyst: **WH**
1,1,1,2-Tetrachloroethane	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
1,1,1-Trichloroethane	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
1,1,2,2-Tetrachloroethane	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
1,1,2-Trichloroethane	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
1,1,2-Trichlorotrifluoroethane	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
1,1-Dichloroethane	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
1,1-Dichloroethene	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
1,2,3-Trichloropropane	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
1,2,4-Trichlorobenzene	ND		150	µg/Kg-dry	1	2/19/2020 10:13 PM
1,2,4-Trimethylbenzene	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
1,2-Dibromo-3-chloropropane	ND		150	µg/Kg-dry	1	2/19/2020 10:13 PM
1,2-Dibromoethane	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
1,2-Dichlorobenzene	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
1,2-Dichloroethane	ND		150	µg/Kg-dry	1	2/19/2020 10:13 PM
1,2-Dichloropropane	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
1,3,5-Trimethylbenzene	ND		150	µg/Kg-dry	1	2/19/2020 10:13 PM
1,3-Dichlorobenzene	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
1,4-Dichlorobenzene	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
2-Butanone	ND		300	µg/Kg-dry	1	2/19/2020 10:13 PM
2-Hexanone	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
2-Methylnaphthalene	ND		150	µg/Kg-dry	1	2/19/2020 10:13 PM
4-Methyl-2-pentanone	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
Acetone	ND		150	µg/Kg-dry	1	2/19/2020 10:13 PM
Acrylonitrile	ND		150	µg/Kg-dry	1	2/19/2020 10:13 PM
Benzene	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
Bromochloromethane	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
Bromodichloromethane	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-11 5-10'
Collection Date: 2/11/2020 02:00 PM

Work Order: 20020850
Lab ID: 20020850-24
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
Bromomethane	ND		150	µg/Kg-dry	1	2/19/2020 10:13 PM
Carbon disulfide	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
Carbon tetrachloride	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
Chlorobenzene	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
Chloroethane	ND		150	µg/Kg-dry	1	2/19/2020 10:13 PM
Chloroform	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
Chloromethane	ND		150	µg/Kg-dry	1	2/19/2020 10:13 PM
cis-1,2-Dichloroethene	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
cis-1,3-Dichloropropene	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
Dibromochloromethane	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
Dibromomethane	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
Dichlorodifluoromethane	ND		150	µg/Kg-dry	1	2/19/2020 10:13 PM
Diethyl ether	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
Ethylbenzene	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
Hexachloroethane	ND		150	µg/Kg-dry	1	2/19/2020 10:13 PM
Isopropylbenzene	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
m,p-Xylene	ND		89	µg/Kg-dry	1	2/19/2020 10:13 PM
Methyl iodide	ND		740	µg/Kg-dry	1	2/19/2020 10:13 PM
Methyl tert-butyl ether	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
Methylene chloride	ND		370	µg/Kg-dry	1	2/19/2020 10:13 PM
Naphthalene	ND		150	µg/Kg-dry	1	2/19/2020 10:13 PM
n-Propylbenzene	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
o-Xylene	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
Styrene	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
Tetrachloroethene	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
Toluene	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
trans-1,2-Dichloroethene	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
trans-1,3-Dichloropropene	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
trans-1,4-Dichloro-2-butene	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
Trichloroethene	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
Trichlorofluoromethane	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
Vinyl acetate	ND		370	µg/Kg-dry	1	2/19/2020 10:13 PM
Vinyl chloride	ND		45	µg/Kg-dry	1	2/19/2020 10:13 PM
Xylenes, Total	ND		130	µg/Kg-dry	1	2/19/2020 10:13 PM
Surr: 1,2-Dichloroethane-d4	*106*		*70-130*	*%REC*	1	2/19/2020 10:13 PM
Surr: 4-Bromofluorobenzene	*101*		*70-130*	*%REC*	1	2/19/2020 10:13 PM
Surr: Dibromofluoromethane	*95.4*		*70-130*	*%REC*	1	2/19/2020 10:13 PM
Surr: Toluene-d8	*95.3*		*70-130*	*%REC*	1	2/19/2020 10:13 PM

BIOCHEMICAL OXYGEN DEMAND **A5210B-11** Prep: A5210B 2/13/20 12:46 Analyst: **QTN**

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20020850
Sample ID: S-11 5-10'
Lab ID: 20020850-24
Collection Date: 2/11/2020 02:00 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Biochemical Oxygen Demand	**0.0090**		**0.0060**	**mg/Kg-dry**	1	2/18/2020 10:45 AM
MOISTURE			**SW3550C**			Analyst: **KTP**
Moisture	**20**		**0.10**	**% of sample**	1	2/14/2020 04:09 PM
PHOSPHORUS, TOTAL			**E365.1 R2.0**		Prep: E365.1 R2.0 2/13/20 09:25	Analyst: **CAC**
Phosphorus, Total	**450**		**120**	**mg/Kg-dry**	5	2/13/2020 05:07 PM
PH			**SW9045D**		Prep: EXTRACT 2/13/20 10:29	Analyst: **DNW**
pH	**8.66**		**0.100**	**s.u.**	1	2/13/2020 03:10 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: A-4
Collection Date: 2/11/2020 12:00 PM

Work Order: 20020850
Lab ID: 20020850-27
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			**SW8260C**			Analyst: **JNS**
1,1,1,2-Tetrachloroethane	ND		1.0	µg/L	1	2/19/2020 05:50 PM
1,1,1-Trichloroethane	ND		1.0	µg/L	1	2/19/2020 05:50 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	2/19/2020 05:50 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	2/19/2020 05:50 PM
1,1,2-Trichlorotrifluoroethane	ND		1.0	µg/L	1	2/19/2020 05:50 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	2/19/2020 05:50 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	2/19/2020 05:50 PM
1,2,3-Trichloropropane	ND		1.0	µg/L	1	2/19/2020 05:50 PM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	2/19/2020 05:50 PM
1,2,4-Trimethylbenzene	ND		1.0	µg/L	1	2/19/2020 05:50 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	2/19/2020 05:50 PM
1,2-Dibromoethane	ND		1.0	µg/L	1	2/19/2020 05:50 PM
1,2-Dichlorobenzene	ND		1.0	µg/L	1	2/19/2020 05:50 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	2/19/2020 05:50 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	2/19/2020 05:50 PM
1,3,5-Trimethylbenzene	ND		1.0	µg/L	1	2/19/2020 05:50 PM
1,3-Dichlorobenzene	ND		1.0	µg/L	1	2/19/2020 05:50 PM
1,4-Dichlorobenzene	ND		1.0	µg/L	1	2/19/2020 05:50 PM
2-Butanone	ND		5.0	µg/L	1	2/19/2020 05:50 PM
2-Hexanone	ND		5.0	µg/L	1	2/19/2020 05:50 PM
2-Methylnaphthalene	ND		5.0	µg/L	1	2/19/2020 05:50 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	2/19/2020 05:50 PM
Acetone	ND		10	µg/L	1	2/19/2020 05:50 PM
Acrylonitrile	ND		1.0	µg/L	1	2/19/2020 05:50 PM
Benzene	ND		1.0	µg/L	1	2/19/2020 05:50 PM
Bromochloromethane	ND		1.0	µg/L	1	2/19/2020 05:50 PM
Bromodichloromethane	ND		1.0	µg/L	1	2/19/2020 05:50 PM
Bromoform	ND		1.0	µg/L	1	2/19/2020 05:50 PM
Bromomethane	ND		1.0	µg/L	1	2/19/2020 05:50 PM
Carbon disulfide	ND		1.0	µg/L	1	2/19/2020 05:50 PM
Carbon tetrachloride	ND		1.0	µg/L	1	2/19/2020 05:50 PM
Chlorobenzene	ND		1.0	µg/L	1	2/19/2020 05:50 PM
Chloroethane	ND		1.0	µg/L	1	2/19/2020 05:50 PM
Chloroform	ND		1.0	µg/L	1	2/19/2020 05:50 PM
Chloromethane	ND		1.0	µg/L	1	2/19/2020 05:50 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	2/19/2020 05:50 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	2/19/2020 05:50 PM
Dibromochloromethane	ND		1.0	µg/L	1	2/19/2020 05:50 PM
Dibromomethane	ND		1.0	µg/L	1	2/19/2020 05:50 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: A-4
Collection Date: 2/11/2020 12:00 PM

Work Order: 20020850
Lab ID: 20020850-27
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dichlorodifluoromethane	ND		1.0	µg/L	1	2/19/2020 05:50 PM
Diethyl ether	ND		1.0	µg/L	1	2/19/2020 05:50 PM
Ethylbenzene	ND		1.0	µg/L	1	2/19/2020 05:50 PM
Hexachloroethane	ND		1.0	µg/L	1	2/19/2020 05:50 PM
Isopropylbenzene	ND		1.0	µg/L	1	2/19/2020 05:50 PM
m,p-Xylene	ND		2.0	µg/L	1	2/19/2020 05:50 PM
Methyl iodide	ND		5.0	µg/L	1	2/19/2020 05:50 PM
Methyl tert-butyl ether	ND		1.0	µg/L	1	2/19/2020 05:50 PM
Methylene chloride	ND		5.0	µg/L	1	2/19/2020 05:50 PM
Naphthalene	ND		5.0	µg/L	1	2/19/2020 05:50 PM
n-Propylbenzene	ND		1.0	µg/L	1	2/19/2020 05:50 PM
o-Xylene	ND		1.0	µg/L	1	2/19/2020 05:50 PM
Styrene	ND		1.0	µg/L	1	2/19/2020 05:50 PM
Tetrachloroethene	ND		1.0	µg/L	1	2/19/2020 05:50 PM
Toluene	ND		1.0	µg/L	1	2/19/2020 05:50 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	2/19/2020 05:50 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	2/19/2020 05:50 PM
trans-1,4-Dichloro-2-butene	ND		2.0	µg/L	1	2/19/2020 05:50 PM
Trichloroethene	ND		1.0	µg/L	1	2/19/2020 05:50 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	2/19/2020 05:50 PM
Vinyl acetate	ND		5.0	µg/L	1	2/19/2020 05:50 PM
Vinyl chloride	ND		1.0	µg/L	1	2/19/2020 05:50 PM
Xylenes, Total	ND		3.0	µg/L	1	2/19/2020 05:50 PM
Surr: 1,2-Dichloroethane-d4	*99.4*		*75-120*	*%REC*	1	2/19/2020 05:50 PM
Surr: 4-Bromofluorobenzene	*97.9*		*80-110*	*%REC*	1	2/19/2020 05:50 PM
Surr: Dibromofluoromethane	*104*		*85-115*	*%REC*	1	2/19/2020 05:50 PM
Surr: Toluene-d8	*97.4*		*85-110*	*%REC*	1	2/19/2020 05:50 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: A-5
Collection Date: 2/12/2020 12:30 PM

Work Order: 20020850
Lab ID: 20020850-28
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3511 2/18/20 14:09	Analyst: **RM**
Aroclor 1016	ND		0.20	µg/L	1	2/19/2020 02:27 AM
Aroclor 1221	ND		0.20	µg/L	1	2/19/2020 02:27 AM
Aroclor 1232	ND		0.20	µg/L	1	2/19/2020 02:27 AM
Aroclor 1242	ND		0.20	µg/L	1	2/19/2020 02:27 AM
Aroclor 1248	ND		0.20	µg/L	1	2/19/2020 02:27 AM
Aroclor 1254	ND		0.20	µg/L	1	2/19/2020 02:27 AM
Aroclor 1260	ND		0.20	µg/L	1	2/19/2020 02:27 AM
Aroclor 1262	ND		0.20	µg/L	1	2/19/2020 02:27 AM
Aroclor 1268	ND		0.20	µg/L	1	2/19/2020 02:27 AM
Surr: Decachlorobiphenyl	*79.7*		*30-150*	*%REC*	1	2/19/2020 02:27 AM
Surr: Tetrachloro-m-xylene	*69.1*		*50-150*	*%REC*	1	2/19/2020 02:27 AM
MERCURY BY CVAA			**SW7470A**		Prep: SW7470 2/18/20 12:51	Analyst: **RSH**
Mercury	ND		0.00020	mg/L	1	2/18/2020 04:33 PM
METALS BY ICP-MS			**SW6020B**		Prep: SW3015A 2/18/20 10:00	Analyst: **STP**
Arsenic	ND		0.0050	mg/L	1	2/18/2020 02:25 PM
Barium	ND		0.0050	mg/L	1	2/18/2020 02:25 PM
Cadmium	ND		0.0020	mg/L	1	2/18/2020 02:25 PM
Chromium	ND		0.0050	mg/L	1	2/18/2020 02:25 PM
Copper	ND		0.0050	mg/L	1	2/18/2020 02:25 PM
Lead	ND		0.0050	mg/L	1	2/18/2020 02:25 PM
Nickel	ND		0.0050	mg/L	1	2/18/2020 02:25 PM
Selenium	ND		0.0050	mg/L	1	2/18/2020 02:25 PM
Silver	ND		0.0050	mg/L	1	2/18/2020 02:25 PM
Thorium	ND		0.0050	mg/L	1	2/18/2020 02:25 PM
Uranium	ND		0.0050	mg/L	1	2/18/2020 02:25 PM
Zinc	ND		0.010	mg/L	1	2/18/2020 02:25 PM
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)			**SW846 8270D**		Prep: SW3511 2/13/20 13:34	Analyst: **EEW**
1-Methylnaphthalene	ND		0.17	µg/L	1	2/18/2020 10:28 PM
2-Chloronaphthalene	ND		0.17	µg/L	1	2/18/2020 10:28 PM
2-Methylnaphthalene	ND		0.17	µg/L	1	2/18/2020 10:28 PM
Acenaphthene	ND		0.17	µg/L	1	2/18/2020 10:28 PM
Acenaphthylene	ND		0.17	µg/L	1	2/18/2020 10:28 PM
Anthracene	ND		0.17	µg/L	1	2/18/2020 10:28 PM
Benzo(a)anthracene	ND		0.17	µg/L	1	2/18/2020 10:28 PM
Benzo(a)pyrene	ND		0.17	µg/L	1	2/18/2020 10:28 PM
Benzo(b)fluoranthene	ND		0.17	µg/L	1	2/18/2020 10:28 PM
Benzo(g,h,i)perylene	ND		0.17	µg/L	1	2/18/2020 10:28 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: A-5
Collection Date: 2/12/2020 12:30 PM

Work Order: 20020850
Lab ID: 20020850-28
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(k)fluoranthene	ND		0.17	µg/L	1	2/18/2020 10:28 PM
Chrysene	ND		0.17	µg/L	1	2/18/2020 10:28 PM
Dibenzo(a,h)anthracene	ND		0.17	µg/L	1	2/18/2020 10:28 PM
Fluoranthene	ND		0.17	µg/L	1	2/18/2020 10:28 PM
Fluorene	ND		0.17	µg/L	1	2/18/2020 10:28 PM
Indeno(1,2,3-cd)pyrene	ND		0.17	µg/L	1	2/18/2020 10:28 PM
Naphthalene	ND		0.17	µg/L	1	2/18/2020 10:28 PM
Phenanthrene	ND		0.17	µg/L	1	2/18/2020 10:28 PM
Pyrene	ND		0.17	µg/L	1	2/18/2020 10:28 PM
Surr: 2-Fluorobiphenyl	*88.6*		*20-140*	*%REC*	1	2/18/2020 10:28 PM
Surr: 4-Terphenyl-d14	*72.5*		*20-172*	*%REC*	1	2/18/2020 10:28 PM
Surr: Nitrobenzene-d5	*35.8*		*10-140*	*%REC*	1	2/18/2020 10:28 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260C**			Analyst: **JNS**
1,1,1,2-Tetrachloroethane	ND		1.0	µg/L	1	2/19/2020 06:11 PM
1,1,1-Trichloroethane	ND		1.0	µg/L	1	2/19/2020 06:11 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	2/19/2020 06:11 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	2/19/2020 06:11 PM
1,1,2-Trichlorotrifluoroethane	ND		1.0	µg/L	1	2/19/2020 06:11 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	2/19/2020 06:11 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	2/19/2020 06:11 PM
1,2,3-Trichloropropane	ND		1.0	µg/L	1	2/19/2020 06:11 PM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	2/19/2020 06:11 PM
1,2,4-Trimethylbenzene	ND		1.0	µg/L	1	2/19/2020 06:11 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	2/19/2020 06:11 PM
1,2-Dibromoethane	ND		1.0	µg/L	1	2/19/2020 06:11 PM
1,2-Dichlorobenzene	ND		1.0	µg/L	1	2/19/2020 06:11 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	2/19/2020 06:11 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	2/19/2020 06:11 PM
1,3,5-Trimethylbenzene	ND		1.0	µg/L	1	2/19/2020 06:11 PM
1,3-Dichlorobenzene	ND		1.0	µg/L	1	2/19/2020 06:11 PM
1,4-Dichlorobenzene	ND		1.0	µg/L	1	2/19/2020 06:11 PM
2-Butanone	ND		5.0	µg/L	1	2/19/2020 06:11 PM
2-Hexanone	ND		5.0	µg/L	1	2/19/2020 06:11 PM
2-Methylnaphthalene	ND		5.0	µg/L	1	2/19/2020 06:11 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	2/19/2020 06:11 PM
Acetone	ND		10	µg/L	1	2/19/2020 06:11 PM
Acrylonitrile	ND		1.0	µg/L	1	2/19/2020 06:11 PM
Benzene	ND		1.0	µg/L	1	2/19/2020 06:11 PM
Bromochloromethane	ND		1.0	µg/L	1	2/19/2020 06:11 PM
Bromodichloromethane	ND		1.0	µg/L	1	2/19/2020 06:11 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: A-5
Collection Date: 2/12/2020 12:30 PM

Work Order: 20020850
Lab ID: 20020850-28
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromoform	ND		1.0	µg/L	1	2/19/2020 06:11 PM
Bromomethane	ND		1.0	µg/L	1	2/19/2020 06:11 PM
Carbon disulfide	ND		1.0	µg/L	1	2/19/2020 06:11 PM
Carbon tetrachloride	ND		1.0	µg/L	1	2/19/2020 06:11 PM
Chlorobenzene	ND		1.0	µg/L	1	2/19/2020 06:11 PM
Chloroethane	ND		1.0	µg/L	1	2/19/2020 06:11 PM
Chloroform	ND		1.0	µg/L	1	2/19/2020 06:11 PM
Chloromethane	ND		1.0	µg/L	1	2/19/2020 06:11 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	2/19/2020 06:11 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	2/19/2020 06:11 PM
Dibromochloromethane	ND		1.0	µg/L	1	2/19/2020 06:11 PM
Dibromomethane	ND		1.0	µg/L	1	2/19/2020 06:11 PM
Dichlorodifluoromethane	ND		1.0	µg/L	1	2/19/2020 06:11 PM
Diethyl ether	ND		1.0	µg/L	1	2/19/2020 06:11 PM
Ethylbenzene	ND		1.0	µg/L	1	2/19/2020 06:11 PM
Hexachloroethane	ND		1.0	µg/L	1	2/19/2020 06:11 PM
Isopropylbenzene	ND		1.0	µg/L	1	2/19/2020 06:11 PM
m,p-Xylene	ND		2.0	µg/L	1	2/19/2020 06:11 PM
Methyl iodide	ND		5.0	µg/L	1	2/19/2020 06:11 PM
Methyl tert-butyl ether	ND		1.0	µg/L	1	2/19/2020 06:11 PM
Methylene chloride	ND		5.0	µg/L	1	2/19/2020 06:11 PM
Naphthalene	ND		5.0	µg/L	1	2/19/2020 06:11 PM
n-Propylbenzene	ND		1.0	µg/L	1	2/19/2020 06:11 PM
o-Xylene	ND		1.0	µg/L	1	2/19/2020 06:11 PM
Styrene	ND		1.0	µg/L	1	2/19/2020 06:11 PM
Tetrachloroethene	ND		1.0	µg/L	1	2/19/2020 06:11 PM
Toluene	ND		1.0	µg/L	1	2/19/2020 06:11 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	2/19/2020 06:11 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	2/19/2020 06:11 PM
trans-1,4-Dichloro-2-butene	ND		2.0	µg/L	1	2/19/2020 06:11 PM
Trichloroethene	ND		1.0	µg/L	1	2/19/2020 06:11 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	2/19/2020 06:11 PM
Vinyl acetate	ND		5.0	µg/L	1	2/19/2020 06:11 PM
Vinyl chloride	ND		1.0	µg/L	1	2/19/2020 06:11 PM
Xylenes, Total	ND		3.0	µg/L	1	2/19/2020 06:11 PM
Surr: 1,2-Dichloroethane-d4	*100*		*75-120*	*%REC*	1	2/19/2020 06:11 PM
Surr: 4-Bromofluorobenzene	*96.4*		*80-110*	*%REC*	1	2/19/2020 06:11 PM
Surr: Dibromofluoromethane	*105*		*85-115*	*%REC*	1	2/19/2020 06:11 PM
Surr: Toluene-d8	*94.8*		*85-110*	*%REC*	1	2/19/2020 06:11 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-9 0-5' TCLP
Collection Date: 2/11/2020 04:00 PM

Work Order: 20020850
Lab ID: 20020850-29
Matrix: TCLP EXTRACT

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP METALS ANALYSIS BY ICP-MS			**SW6020B**		Prep: SW3015A 2/26/20 12:58	Analyst: **STP**
Lead	ND		0.050	mg/L	1	2/26/2020 06:20 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-2 5-7' TCLP
Collection Date: 2/12/2020 02:00 PM

Work Order: 20020850
Lab ID: 20020850-36
Matrix: TCLP EXTRACT

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP METALS ANALYSIS BY ICP-MS			**SW6020B**		Prep: SW3015A 2/26/20 12:58	Analyst: **STP**
Lead	ND		0.050	mg/L	1	2/26/2020 06:22 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-5 14-15' TCLP
Collection Date: 2/12/2020 03:25 PM

Work Order: 20020850
Lab ID: 20020850-39
Matrix: TCLP EXTRACT

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP METALS ANALYSIS BY ICP-MS			**SW6020B**		Prep: SW3015A 2/26/20 12:58	Analyst: **STP**
Lead	**0.052**		**0.050**	**mg/L**	1	2/26/2020 06:27 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client:	PM Environmental		
Project:	Sediment Project 01-5303-3-0001	**Work Order:**	20020850
Sample ID:	S-13 0-5' TCLP	**Lab ID:**	20020850-41
Collection Date:	2/11/2020 10:45 AM	**Matrix:**	TCLP EXTRACT

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP METALS ANALYSIS BY ICP-MS			**SW6020B**		Prep: SW3015A 2/26/20 12:58	Analyst: **STP**
Lead	**0.48**		**0.050**	**mg/L**	1	2/26/2020 06:28 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: S-11 5-10' TCLP
Collection Date: 2/11/2020 02:00 PM

Work Order: 20020850
Lab ID: 20020850-44
Matrix: TCLP EXTRACT

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP METALS ANALYSIS BY ICP-MS			**SW6020B**		Prep: SW3015A 2/26/20 12:58	Analyst: **STP**
Lead	ND		0.050	mg/L	1	2/26/2020 06:30 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: Trip Blank #1
Collection Date: 2/11/2020

Work Order: 20020850
Lab ID: 20020850-47
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			**SW8260C**			Analyst: **JNS**
1,1,1,2-Tetrachloroethane	ND		1.0	µg/L	1	2/19/2020 04:08 PM
1,1,1-Trichloroethane	ND		1.0	µg/L	1	2/19/2020 04:08 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	2/19/2020 04:08 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	2/19/2020 04:08 PM
1,1,2-Trichlorotrifluoroethane	ND		1.0	µg/L	1	2/19/2020 04:08 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	2/19/2020 04:08 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	2/19/2020 04:08 PM
1,2,3-Trichloropropane	ND		1.0	µg/L	1	2/19/2020 04:08 PM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	2/19/2020 04:08 PM
1,2,4-Trimethylbenzene	ND		1.0	µg/L	1	2/19/2020 04:08 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	2/19/2020 04:08 PM
1,2-Dibromoethane	ND		1.0	µg/L	1	2/19/2020 04:08 PM
1,2-Dichlorobenzene	ND		1.0	µg/L	1	2/19/2020 04:08 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	2/19/2020 04:08 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	2/19/2020 04:08 PM
1,3,5-Trimethylbenzene	ND		1.0	µg/L	1	2/19/2020 04:08 PM
1,3-Dichlorobenzene	ND		1.0	µg/L	1	2/19/2020 04:08 PM
1,4-Dichlorobenzene	ND		1.0	µg/L	1	2/19/2020 04:08 PM
2-Butanone	ND		5.0	µg/L	1	2/19/2020 04:08 PM
2-Hexanone	ND		5.0	µg/L	1	2/19/2020 04:08 PM
2-Methylnaphthalene	ND		5.0	µg/L	1	2/19/2020 04:08 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	2/19/2020 04:08 PM
Acetone	ND		10	µg/L	1	2/19/2020 04:08 PM
Acrylonitrile	ND		1.0	µg/L	1	2/19/2020 04:08 PM
Benzene	ND		1.0	µg/L	1	2/19/2020 04:08 PM
Bromochloromethane	ND		1.0	µg/L	1	2/19/2020 04:08 PM
Bromodichloromethane	ND		1.0	µg/L	1	2/19/2020 04:08 PM
Bromoform	ND		1.0	µg/L	1	2/19/2020 04:08 PM
Bromomethane	ND		1.0	µg/L	1	2/19/2020 04:08 PM
Carbon disulfide	ND		1.0	µg/L	1	2/19/2020 04:08 PM
Carbon tetrachloride	ND		1.0	µg/L	1	2/19/2020 04:08 PM
Chlorobenzene	ND		1.0	µg/L	1	2/19/2020 04:08 PM
Chloroethane	ND		1.0	µg/L	1	2/19/2020 04:08 PM
Chloroform	ND		1.0	µg/L	1	2/19/2020 04:08 PM
Chloromethane	ND		1.0	µg/L	1	2/19/2020 04:08 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	2/19/2020 04:08 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	2/19/2020 04:08 PM
Dibromochloromethane	ND		1.0	µg/L	1	2/19/2020 04:08 PM
Dibromomethane	ND		1.0	µg/L	1	2/19/2020 04:08 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: Trip Blank #1
Collection Date: 2/11/2020

Work Order: 20020850
Lab ID: 20020850-47
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dichlorodifluoromethane	ND		1.0	µg/L	1	2/19/2020 04:08 PM
Diethyl ether	ND		1.0	µg/L	1	2/19/2020 04:08 PM
Ethylbenzene	ND		1.0	µg/L	1	2/19/2020 04:08 PM
Hexachloroethane	ND		1.0	µg/L	1	2/19/2020 04:08 PM
Isopropylbenzene	ND		1.0	µg/L	1	2/19/2020 04:08 PM
m,p-Xylene	ND		2.0	µg/L	1	2/19/2020 04:08 PM
Methyl iodide	ND		5.0	µg/L	1	2/19/2020 04:08 PM
Methyl tert-butyl ether	ND		1.0	µg/L	1	2/19/2020 04:08 PM
Methylene chloride	ND		5.0	µg/L	1	2/19/2020 04:08 PM
Naphthalene	ND		5.0	µg/L	1	2/19/2020 04:08 PM
n-Propylbenzene	ND		1.0	µg/L	1	2/19/2020 04:08 PM
o-Xylene	ND		1.0	µg/L	1	2/19/2020 04:08 PM
Styrene	ND		1.0	µg/L	1	2/19/2020 04:08 PM
Tetrachloroethene	ND		1.0	µg/L	1	2/19/2020 04:08 PM
Toluene	ND		1.0	µg/L	1	2/19/2020 04:08 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	2/19/2020 04:08 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	2/19/2020 04:08 PM
trans-1,4-Dichloro-2-butene	ND		2.0	µg/L	1	2/19/2020 04:08 PM
Trichloroethene	ND		1.0	µg/L	1	2/19/2020 04:08 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	2/19/2020 04:08 PM
Vinyl acetate	ND		5.0	µg/L	1	2/19/2020 04:08 PM
Vinyl chloride	ND		1.0	µg/L	1	2/19/2020 04:08 PM
Xylenes, Total	ND		3.0	µg/L	1	2/19/2020 04:08 PM
Surr: 1,2-Dichloroethane-d4	*97.8*		*75-120*	*%REC*	1	2/19/2020 04:08 PM
Surr: 4-Bromofluorobenzene	*97.4*		*80-110*	*%REC*	1	2/19/2020 04:08 PM
Surr: Dibromofluoromethane	*104*		*85-115*	*%REC*	1	2/19/2020 04:08 PM
Surr: Toluene-d8	*94.8*		*85-110*	*%REC*	1	2/19/2020 04:08 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: Trip Blank #2
Collection Date: 2/11/2020

Work Order: 20020850
Lab ID: 20020850-48
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			**SW8260C**			Analyst: **JNS**
1,1,1,2-Tetrachloroethane	ND		1.0	µg/L	1	2/19/2020 04:28 PM
1,1,1-Trichloroethane	ND		1.0	µg/L	1	2/19/2020 04:28 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	2/19/2020 04:28 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	2/19/2020 04:28 PM
1,1,2-Trichlorotrifluoroethane	ND		1.0	µg/L	1	2/19/2020 04:28 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	2/19/2020 04:28 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	2/19/2020 04:28 PM
1,2,3-Trichloropropane	ND		1.0	µg/L	1	2/19/2020 04:28 PM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	2/19/2020 04:28 PM
1,2,4-Trimethylbenzene	ND		1.0	µg/L	1	2/19/2020 04:28 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	2/19/2020 04:28 PM
1,2-Dibromoethane	ND		1.0	µg/L	1	2/19/2020 04:28 PM
1,2-Dichlorobenzene	ND		1.0	µg/L	1	2/19/2020 04:28 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	2/19/2020 04:28 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	2/19/2020 04:28 PM
1,3,5-Trimethylbenzene	ND		1.0	µg/L	1	2/19/2020 04:28 PM
1,3-Dichlorobenzene	ND		1.0	µg/L	1	2/19/2020 04:28 PM
1,4-Dichlorobenzene	ND		1.0	µg/L	1	2/19/2020 04:28 PM
2-Butanone	ND		5.0	µg/L	1	2/19/2020 04:28 PM
2-Hexanone	ND		5.0	µg/L	1	2/19/2020 04:28 PM
2-Methylnaphthalene	ND		5.0	µg/L	1	2/19/2020 04:28 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	2/19/2020 04:28 PM
Acetone	ND		10	µg/L	1	2/19/2020 04:28 PM
Acrylonitrile	ND		1.0	µg/L	1	2/19/2020 04:28 PM
Benzene	ND		1.0	µg/L	1	2/19/2020 04:28 PM
Bromochloromethane	ND		1.0	µg/L	1	2/19/2020 04:28 PM
Bromodichloromethane	ND		1.0	µg/L	1	2/19/2020 04:28 PM
Bromoform	ND		1.0	µg/L	1	2/19/2020 04:28 PM
Bromomethane	ND		1.0	µg/L	1	2/19/2020 04:28 PM
Carbon disulfide	ND		1.0	µg/L	1	2/19/2020 04:28 PM
Carbon tetrachloride	ND		1.0	µg/L	1	2/19/2020 04:28 PM
Chlorobenzene	ND		1.0	µg/L	1	2/19/2020 04:28 PM
Chloroethane	ND		1.0	µg/L	1	2/19/2020 04:28 PM
Chloroform	ND		1.0	µg/L	1	2/19/2020 04:28 PM
Chloromethane	ND		1.0	µg/L	1	2/19/2020 04:28 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	2/19/2020 04:28 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	2/19/2020 04:28 PM
Dibromochloromethane	ND		1.0	µg/L	1	2/19/2020 04:28 PM
Dibromomethane	ND		1.0	µg/L	1	2/19/2020 04:28 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Sample ID: Trip Blank #2
Collection Date: 2/11/2020

Work Order: 20020850
Lab ID: 20020850-48
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dichlorodifluoromethane	ND		1.0	µg/L	1	2/19/2020 04:28 PM
Diethyl ether	ND		1.0	µg/L	1	2/19/2020 04:28 PM
Ethylbenzene	ND		1.0	µg/L	1	2/19/2020 04:28 PM
Hexachloroethane	ND		1.0	µg/L	1	2/19/2020 04:28 PM
Isopropylbenzene	ND		1.0	µg/L	1	2/19/2020 04:28 PM
m,p-Xylene	ND		2.0	µg/L	1	2/19/2020 04:28 PM
Methyl iodide	ND		5.0	µg/L	1	2/19/2020 04:28 PM
Methyl tert-butyl ether	ND		1.0	µg/L	1	2/19/2020 04:28 PM
Methylene chloride	ND		5.0	µg/L	1	2/19/2020 04:28 PM
Naphthalene	ND		5.0	µg/L	1	2/19/2020 04:28 PM
n-Propylbenzene	ND		1.0	µg/L	1	2/19/2020 04:28 PM
o-Xylene	ND		1.0	µg/L	1	2/19/2020 04:28 PM
Styrene	ND		1.0	µg/L	1	2/19/2020 04:28 PM
Tetrachloroethene	ND		1.0	µg/L	1	2/19/2020 04:28 PM
Toluene	ND		1.0	µg/L	1	2/19/2020 04:28 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	2/19/2020 04:28 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	2/19/2020 04:28 PM
trans-1,4-Dichloro-2-butene	ND		2.0	µg/L	1	2/19/2020 04:28 PM
Trichloroethene	ND		1.0	µg/L	1	2/19/2020 04:28 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	2/19/2020 04:28 PM
Vinyl acetate	ND		5.0	µg/L	1	2/19/2020 04:28 PM
Vinyl chloride	ND		1.0	µg/L	1	2/19/2020 04:28 PM
Xylenes, Total	ND		3.0	µg/L	1	2/19/2020 04:28 PM
Surr: 1,2-Dichloroethane-d4	*100*		*75-120*	*%REC*	1	2/19/2020 04:28 PM
Surr: 4-Bromofluorobenzene	*96.8*		*80-110*	*%REC*	1	2/19/2020 04:28 PM
Surr: Dibromofluoromethane	*104*		*85-115*	*%REC*	1	2/19/2020 04:28 PM
Surr: Toluene-d8	*95.0*		*85-110*	*%REC*	1	2/19/2020 04:28 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client: PM Environmental
Project: Sediment Project 01-5303-3-0001
Work Order: 20020850
Sample ID: SB-13 3.5-4.5' TCLP
Lab ID: 20020850-49
Collection Date: 2/10/2020 02:45 PM
Matrix: TCLP EXTRACT

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP METALS ANALYSIS BY ICP-MS			**SW6020B**		Prep: SW3015A 2/26/20 12:58	Analyst: **STP**
Chromium	**0.50**	B	**0.050**	**mg/L**	1	2/26/2020 06:31 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *28-Feb-20*

Client:	PM Environmental		
Project:	Sediment Project 01-5303-3-0001	**Work Order:**	20020850
Sample ID:	SB-13 4.5-5.5' TCLP	**Lab ID:**	20020850-50
Collection Date:	2/10/2020 03:05 PM	**Matrix:**	TCLP EXTRACT

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP METALS ANALYSIS BY ICP-MS			**SW6020B**		Prep: SW3015A 2/26/20 12:58	Analyst: **STP**
Chromium	ND		0.050	mg/L	1	2/26/2020 06:33 PM
Lead	**0.21**		**0.050**	**mg/L**	1	2/26/2020 06:33 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 28-Feb-20

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151929** Instrument ID **GC14** Method: **SW8082**

MBLK Sample ID: **PBLKS1-151929-151929** Units: **µg/Kg** Analysis Date: **2/16/2020 02:16 PM**

Client ID: Run ID: **GC14_200216A** SeqNo: **6253160** Prep Date: **2/14/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	67								
Aroclor 1221	ND	67								
Aroclor 1232	ND	67								
Aroclor 1242	ND	67								
Aroclor 1248	ND	67								
Aroclor 1254	ND	67								
Aroclor 1260	ND	67								
Aroclor 1262	ND	67								
Aroclor 1268	ND	67								
Surr: Decachlorobiphenyl	*30.61*	0	*33.3*	0	*91.9*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*28.5*	0	*33.3*	0	*85.6*	*45-124*	0			

LCS Sample ID: **PLCSS1-151929-151929** Units: **µg/Kg** Analysis Date: **2/16/2020 02:32 PM**

Client ID: Run ID: **GC14_200216A** SeqNo: **6253161** Prep Date: **2/14/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	704.3	67	833	0	84.6	50-130	0			
Aroclor 1260	724.3	67	833	0	87	50-130	0			
Surr: Decachlorobiphenyl	*28.34*	0	*33.3*	0	*85.1*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*26.86*	0	*33.3*	0	*80.7*	*45-124*	0			

MS Sample ID: **20020714-02A MS** Units: **µg/Kg** Analysis Date: **2/16/2020 02:47 PM**

Client ID: Run ID: **GC14_200216A** SeqNo: **6253162** Prep Date: **2/14/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	729.1	66	826.2	0	88.3	40-140	0			
Aroclor 1260	739.1	66	826.2	0	89.5	40-140	0			
Surr: Decachlorobiphenyl	*28.08*	0	*33.03*	0	*85*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*28.28*	0	*33.03*	0	*85.6*	*45-124*	0			

MSD Sample ID: **20020714-02A MSD** Units: **µg/Kg** Analysis Date: **2/16/2020 03:02 PM**

Client ID: Run ID: **GC14_200216A** SeqNo: **6253163** Prep Date: **2/14/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	693.7	65	812.9	0	85.3	40-140	729.1	4.97	50	
Aroclor 1260	694.6	65	812.9	0	85.4	40-140	739.1	6.21	50	
Surr: Decachlorobiphenyl	*27.73*	0	*32.5*	0	*85.3*	*40-140*	28.08	*1.29*	*50*	
Surr: Tetrachloro-m-xylene	*26.07*	0	*32.5*	0	*80.2*	*45-124*	28.28	*8.13*	*50*	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151929** Instrument ID **GC14** Method: **SW8082**

The following samples were analyzed in this batch:

20020850-01B	20020850-02B	20020850-03B
20020850-04B	20020850-05B	20020850-09B
20020850-10B	20020850-11B	20020850-12B
20020850-13B	20020850-14B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152021** Instrument ID **GC14** Method: **SW8082**

MBLK Sample ID: **PBLKS1-152021-152021** Units: **µg/Kg** Analysis Date: **2/17/2020 06:26 PM**

Client ID: Run ID: **GC14_200217A** SeqNo: **6256353** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	67								
Aroclor 1221	ND	67								
Aroclor 1232	ND	67								
Aroclor 1242	ND	67								
Aroclor 1248	ND	67								
Aroclor 1254	ND	67								
Aroclor 1260	ND	67								
Aroclor 1262	ND	67								
Aroclor 1268	ND	67								
Surr: Decachlorobiphenyl	*28.19*	0	*33.3*	0	*84.6*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*26.84*	0	*33.3*	0	*80.6*	*45-124*	0			

LCS Sample ID: **PLCSS1-152021-152021** Units: **µg/Kg** Analysis Date: **2/17/2020 06:42 PM**

Client ID: Run ID: **GC14_200217A** SeqNo: **6256354** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	797.2	67	833	0	95.7	50-130	0			
Aroclor 1260	812.3	67	833	0	97.5	50-130	0			
Surr: Decachlorobiphenyl	*32.29*	0	*33.3*	0	*97*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*31.26*	0	*33.3*	0	*93.9*	*45-124*	0			

MS Sample ID: **20020928-01C MS** Units: **µg/Kg** Analysis Date: **2/17/2020 06:57 PM**

Client ID: Run ID: **GC14_200217A** SeqNo: **6256355** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	742.3	66	824.5	0	90	40-140	0			
Aroclor 1260	823.8	66	824.5	0	99.9	40-140	0			
Surr: Decachlorobiphenyl	*30.47*	0	*32.96*	0	*92.4*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*28.91*	0	*32.96*	0	*87.7*	*45-124*	0			

MSD Sample ID: **20020928-01C MSD** Units: **µg/Kg** Analysis Date: **2/17/2020 07:13 PM**

Client ID: Run ID: **GC14_200217A** SeqNo: **6256356** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	734.6	66	818.5	0	89.7	40-140	742.3	1.04	50	
Aroclor 1260	782.7	66	818.5	0	95.6	40-140	823.8	5.12	50	
Surr: Decachlorobiphenyl	*30.09*	0	*32.72*	0	*92*	*40-140*	30.47	*1.25*	*50*	
Surr: Tetrachloro-m-xylene	*28.12*	0	*32.72*	0	*85.9*	*45-124*	28.91	*2.76*	*50*	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152021** Instrument ID **GC14** Method: **SW8082**

The following samples were analyzed in this batch:

20020850-15B	20020850-16B	20020850-17B
20020850-18B	20020850-19B	20020850-20B
20020850-21B	20020850-22B	20020850-23B
20020850-24B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152085** Instrument ID **GC14** Method: **SW8082**

MBLK Sample ID: **PBLKW1-152085-152085** Units: **µg/L** Analysis Date: **2/18/2020 10:51 PM**

Client ID: Run ID: **GC14_200218A** SeqNo: **6259284** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	0.20								
Aroclor 1221	ND	0.20								
Aroclor 1232	ND	0.20								
Aroclor 1242	ND	0.20								
Aroclor 1248	ND	0.20								
Aroclor 1254	ND	0.20								
Aroclor 1260	ND	0.20								
Aroclor 1262	ND	0.20								
Aroclor 1268	ND	0.20								
Surr: Decachlorobiphenyl	*0.1286*	0	*0.208*	0	*61.8*	*30-150*	0			
Surr: Tetrachloro-m-xylene	*0.184*	0	*0.208*	0	*88.5*	*50-150*	0			

LCS Sample ID: **PLCSW1-152085-152085** Units: **µg/L** Analysis Date: **2/18/2020 11:07 PM**

Client ID: Run ID: **GC14_200218A** SeqNo: **6259285** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	2.499	0.20	4.17	0	59.9	50-150	0			
Aroclor 1260	2.44	0.20	4.17	0	58.5	50-150	0			
Surr: Decachlorobiphenyl	*0.2204*	0	*0.208*	0	*106*	*30-150*	0			
Surr: Tetrachloro-m-xylene	*0.1636*	0	*0.208*	0	*78.7*	*50-150*	0			

MS Sample ID: **20020850-07C MS** Units: **µg/L** Analysis Date: **2/18/2020 11:38 PM**

Client ID: **A2** Run ID: **GC14_200218A** SeqNo: **6259287** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	3.249	0.20	4.17	0	77.9	50-150	0			
Aroclor 1260	4.795	0.20	4.17	0	115	50-150	0			
Surr: Decachlorobiphenyl	*0.1907*	0	*0.208*	0	*91.7*	*30-150*	0			
Surr: Tetrachloro-m-xylene	*0.1622*	0	*0.208*	0	*78*	*50-150*	0			

MSD Sample ID: **20020850-07C MSD** Units: **µg/L** Analysis Date: **2/18/2020 11:53 PM**

Client ID: **A2** Run ID: **GC14_200218A** SeqNo: **6259288** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	3.365	0.20	4.17	0	80.7	50-150	3.249	3.5	50	
Aroclor 1260	4.382	0.20	4.17	0	105	50-150	4.795	9.01	50	
Surr: Decachlorobiphenyl	*0.2001*	0	*0.208*	0	*96.2*	*30-150*	0.1907	*4.84*	*50*	
Surr: Tetrachloro-m-xylene	*0.1821*	0	*0.208*	0	*87.6*	*50-150*	0.1622	*11.6*	*50*	

The following samples were analyzed in this batch:

20020850-07C	20020850-08C	20020850-28C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152098** Instrument ID **HG4** Method: **SW7470A**

MBLK Sample ID: **MBLK-152098-152098** Units: **mg/L** Analysis Date: **2/18/2020 04:10 PM**
Client ID: Run ID: **HG4_200218A** SeqNo: **6257186** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS Sample ID: **LCS-152098-152098** Units: **mg/L** Analysis Date: **2/18/2020 04:12 PM**
Client ID: Run ID: **HG4_200218A** SeqNo: **6257187** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00184	0.00020	0.002	0	92	80-120	0			

MS Sample ID: **20021048-01AMS** Units: **mg/L** Analysis Date: **2/18/2020 04:46 PM**
Client ID: Run ID: **HG4_200218A** SeqNo: **6257203** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0186	0.0020	0.02	0.00024	91.8	75-125	0			

MSD Sample ID: **20021048-01AMSD** Units: **mg/L** Analysis Date: **2/18/2020 04:48 PM**
Client ID: Run ID: **HG4_200218A** SeqNo: **6257204** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0185	0.0020	0.02	0.00024	91.3	75-125	0.0186	0.539	20	

The following samples were analyzed in this batch:

20020850-07D	20020850-08D	20020850-28D

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152116** Instrument ID **HG4** Method: **SW7471B**

MBLK Sample ID: **MBLK-152116-152116** Units: **mg/Kg** Analysis Date: **2/18/2020 05:32 PM**
Client ID: Run ID: **HG4_200218A** SeqNo: **6257223** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.020								

LCS Sample ID: **LCS-152116-152116** Units: **mg/Kg** Analysis Date: **2/18/2020 05:34 PM**
Client ID: Run ID: **HG4_200218A** SeqNo: **6257224** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1642	0.020	0.1665	0	98.6	80-120		0		

MS Sample ID: **20020823-01AMS** Units: **mg/Kg** Analysis Date: **2/18/2020 05:38 PM**
Client ID: Run ID: **HG4_200218A** SeqNo: **6257226** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1672	0.019	0.1561	0.02343	92.1	75-125		0		

MSD Sample ID: **20020823-01AMSD** Units: **mg/Kg** Analysis Date: **2/18/2020 05:40 PM**
Client ID: Run ID: **HG4_200218A** SeqNo: **6257227** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1688	0.019	0.1591	0.02343	91.4	75-125	0.1672	0.954	35	

The following samples were analyzed in this batch:

20020850-01B	20020850-02B	20020850-03B
20020850-04B	20020850-05B	20020850-09B
20020850-10B	20020850-11B	20020850-12B
20020850-13B	20020850-14B	20020850-15B
20020850-16B	20020850-17B	20020850-18B
20020850-19B	20020850-20B	20020850-21B
20020850-22B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152118** Instrument ID **HG4** Method: **SW7471B**

MBLK Sample ID: **MBLK-152118-152118** Units: **mg/Kg** Analysis Date: **2/18/2020 04:50 PM**
Client ID: Run ID: **HG4_200218A** SeqNo: **6257205** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.020								

LCS Sample ID: **LCS-152118-152118** Units: **mg/Kg** Analysis Date: **2/18/2020 04:58 PM**
Client ID: Run ID: **HG4_200218A** SeqNo: **6257209** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1675	0.020	0.1665	0	101	80-120		0		

MS Sample ID: **20020928-01CMS** Units: **mg/Kg** Analysis Date: **2/18/2020 05:21 PM**
Client ID: Run ID: **HG4_200218A** SeqNo: **6257218** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1522	0.017	0.1395	0.02482	91.3	75-125		0		

MSD Sample ID: **20020928-01CMSD** Units: **mg/Kg** Analysis Date: **2/18/2020 05:30 PM**
Client ID: Run ID: **HG4_200218A** SeqNo: **6257222** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1462	0.017	0.1391	0.02482	87.3	75-125	0.1522	4.02	35	

The following samples were analyzed in this batch:

20020850-23B	20020850-24B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152504** Instrument ID **HG4** Method: **SW7470A**

MBLK Sample ID: **MBLK-152504-152504** Units: **mg/L** Analysis Date: **2/27/2020 12:38 PM**
Client ID: Run ID: **HG4_200227A** SeqNo: **6274722** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS Sample ID: **LCS-152504-152504** Units: **mg/L** Analysis Date: **2/27/2020 02:38 PM**
Client ID: Run ID: **HG4_200227A** SeqNo: **6275069** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00195	0.00020	0.002	0	97.5	80-120		0		

MS Sample ID: **20020850-39AMS** Units: **mg/L** Analysis Date: **2/27/2020 02:50 PM**
Client ID: **S-5 14-15' TCLP** Run ID: **HG4_200227A** SeqNo: **6275075** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0197	0.0020	0.02	0.00022	97.4	75-125		0		

MSD Sample ID: **20020850-39AMSD** Units: **mg/L** Analysis Date: **2/27/2020 02:52 PM**
Client ID: **S-5 14-15' TCLP** Run ID: **HG4_200227A** SeqNo: **6275076** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0195	0.0020	0.02	0.00022	96.4	75-125	0.0197	1.02	20	

The following samples were analyzed in this batch:

20020850-29A	20020850-36A	20020850-39A
20020850-41A	20020850-44A	20020850-49A
20020850-50A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152054** Instrument ID **ICPMS3** Method: **SW6020B**

MBLK Sample ID: **MBLK-152054-152054** Units: **mg/Kg** Analysis Date: **2/18/2020 07:33 PM**

Client ID: Run ID: **ICPMS3_200218B** SeqNo: **6256852** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.10								
Chromium	ND	0.25								
Copper	ND	0.25								
Lead	0.1568	0.25								J
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Thorium	ND	0.25								
Uranium	ND	0.25								
Zinc	ND	0.50								

LCS Sample ID: **LCS-152054-152054** Units: **mg/Kg** Analysis Date: **2/18/2020 07:35 PM**

Client ID: Run ID: **ICPMS3_200218B** SeqNo: **6256853** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	5.053	0.25	5	0	101	80-120	0			
Barium	5.339	0.25	5	0	107	80-120	0			
Cadmium	5.109	0.10	5	0	102	80-120	0			
Chromium	5.064	0.25	5	0	101	80-120	0			
Copper	5.031	0.25	5	0	101	80-120	0			
Lead	5.336	0.25	5	0	107	80-120	0			
Nickel	5.053	0.25	5	0	101	80-120	0			
Selenium	5.088	0.25	5	0	102	80-120	0			
Silver	5.134	0.25	5	0	103	80-120	0			
Thorium	4.73	0.25	5	0	94.6	80-120	0			
Uranium	4.644	0.25	5	0	92.9	80-120	0			
Zinc	5.175	0.50	5	0	104	80-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152054** Instrument ID **ICPMS3** Method: **SW6020B**

MS Sample ID: **20020850-19BMS** Units: **mg/Kg** Analysis Date: **2/18/2020 08:15 PM**
Client ID: **S-5 14-15'** Run ID: **ICPMS3_200218B** SeqNo: **6256876** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.73	0.34	6.887	5.783	71.8	75-125	0			S
Barium	66.58	0.34	6.887	52.71	201	75-125	0			SO
Cadmium	27.41	0.14	6.887	5.544	318	75-125	0			S
Chromium	24.72	0.34	6.887	21.07	53	75-125	0			S
Nickel	18.58	0.34	6.887	13.06	80.2	75-125	0			
Selenium	6.159	0.34	6.887	0.3311	84.6	75-125	0			
Silver	5.93	0.34	6.887	0.1786	83.5	75-125	0			
Thorium	8.729	0.34	6.887	1.806	101	75-125	0			
Uranium	7.392	0.34	6.887	0.8842	94.5	75-125	0			

MS Sample ID: **20020850-19BMS** Units: **mg/Kg** Analysis Date: **2/19/2020 03:58 PM**
Client ID: **S-5 14-15'** Run ID: **ICPMS3_200219B** SeqNo: **6259426** Prep Date: **2/17/2020** DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	195	34	6.887	159.2	520	75-125	0			SO
Zinc	836.5	69	6.887	892.9	-818	75-125	0			SO

MS Sample ID: **20020850-19BMS** Units: **mg/Kg** Analysis Date: **2/20/2020 04:57 PM**
Client ID: **S-5 14-15'** Run ID: **ICPMS3_200220B** SeqNo: **6262373** Prep Date: **2/17/2020** DF: **1000**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	2090	340	6.887	1326	11100	75-125	0			SO

MSD Sample ID: **20020850-19BMSD** Units: **mg/Kg** Analysis Date: **2/18/2020 08:17 PM**
Client ID: **S-5 14-15'** Run ID: **ICPMS3_200218B** SeqNo: **6256877** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.31	0.34	6.748	5.783	67	75-125	10.73	4.02	20	S
Barium	72.86	0.34	6.748	52.71	299	75-125	66.58	9	20	SO
Cadmium	11.04	0.13	6.748	5.544	81.5	75-125	27.41	85.1	20	R
Chromium	21.38	0.34	6.748	21.07	4.64	75-125	24.72	14.5	20	S
Nickel	17.38	0.34	6.748	13.06	64	75-125	18.58	6.68	20	S
Selenium	6.307	0.34	6.748	0.3311	88.6	75-125	6.159	2.38	20	
Silver	6.704	0.34	6.748	0.1786	96.7	75-125	5.93	12.3	20	
Thorium	8.426	0.34	6.748	1.806	98.1	75-125	8.729	3.54	20	
Uranium	7.101	0.34	6.748	0.8842	92.1	75-125	7.392	4.01	20	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152054** Instrument ID **ICPMS3** Method: **SW6020B**

MSD Sample ID: **20020850-19BMSD** Units: **mg/Kg** Analysis Date: **2/19/2020 04:03 PM**
Client ID: **S-5 14-15'** Run ID: **ICPMS3_200219B** SeqNo: **6259429** Prep Date: **2/17/2020** DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	131.3	34	6.748	159.2	-413	75-125	195	39	20	SRO
Zinc	596.9	67	6.748	892.9	-4390	75-125	836.5	33.4	20	SRO

MSD Sample ID: **20020850-19BMSD** Units: **mg/Kg** Analysis Date: **2/20/2020 04:59 PM**
Client ID: **S-5 14-15'** Run ID: **ICPMS3_200220B** SeqNo: **6262374** Prep Date: **2/17/2020** DF: **1000**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	1513	340	6.748	1326	2780	75-125	2090	32	20	SRO

The following samples were analyzed in this batch:

20020850-01B	20020850-02B	20020850-03B
20020850-04B	20020850-05B	20020850-09B
20020850-10B	20020850-11B	20020850-12B
20020850-13B	20020850-14B	20020850-15B
20020850-16B	20020850-17B	20020850-18B
20020850-19B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152057** Instrument ID **ICPMS3** Method: **SW6020B**

MBLK Sample ID: **MBLK-152057-152057** Units: **mg/Kg** Analysis Date: **2/18/2020 08:27 PM**

Client ID: Run ID: **ICPMS3_200218B** SeqNo: **6256883** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Cadmium	ND	0.10								
Chromium	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Thorium	ND	0.25								
Uranium	ND	0.25								
Zinc	0.8154	0.50								

MBLK Sample ID: **MBLK-152057-152057** Units: **mg/Kg** Analysis Date: **2/19/2020 03:10 PM**

Client ID: Run ID: **ICPMS3_200219B** SeqNo: **6259396** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.2935	0.25								
Copper	0.5724	0.25								
Lead	0.455	0.25								

LCS Sample ID: **LCS-152057-152057** Units: **mg/Kg** Analysis Date: **2/18/2020 08:28 PM**

Client ID: Run ID: **ICPMS3_200218B** SeqNo: **6256884** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	5.043	0.25	5	0	101	80-120	0			
Barium	5.207	0.25	5	0	104	80-120	0			B
Cadmium	4.927	0.10	5	0	98.5	80-120	0			
Chromium	4.837	0.25	5	0	96.7	80-120	0			
Copper	4.851	0.25	5	0	97	80-120	0			B
Lead	5.184	0.25	5	0	104	80-120	0			B
Nickel	4.815	0.25	5	0	96.3	80-120	0			
Selenium	5.172	0.25	5	0	103	80-120	0			
Silver	4.949	0.25	5	0	99	80-120	0			
Thorium	4.549	0.25	5	0	91	80-120	0			
Uranium	4.359	0.25	5	0	87.2	80-120	0			
Zinc	4.966	0.50	5	0	99.3	80-120	0			B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152057** Instrument ID **ICPMS3** Method: **SW6020B**

MS Sample ID: **20020850-24BMS** Units: **mg/Kg** Analysis Date: **2/18/2020 08:39 PM**
Client ID: **S-11 5-10'** Run ID: **ICPMS3_200218B** SeqNo: **6256890** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.43	0.32	6.46	3.193	96.6	75-125	0			
Barium	74.17	0.32	6.46	61.3	199	75-125	0			BSO
Cadmium	5.766	0.13	6.46	0.2717	85.1	75-125	0			
Chromium	20.79	0.32	6.46	13.02	120	75-125	0			
Lead	47.88	0.32	6.46	92.42	-689	75-125	0			BSO
Nickel	22.89	0.32	6.46	15.9	108	75-125	0			
Selenium	5.86	0.32	6.46	0.2263	87.2	75-125	0			
Silver	5.011	0.32	6.46	0.04309	76.9	75-125	0			
Thorium	9.52	0.32	6.46	3.025	101	75-125	0			
Uranium	7.084	0.32	6.46	0.7956	97.3	75-125	0			

MS Sample ID: **20020850-24BMS** Units: **mg/Kg** Analysis Date: **2/19/2020 04:27 PM**
Client ID: **S-11 5-10'** Run ID: **ICPMS3_200219B** SeqNo: **6261076** Prep Date: **2/17/2020** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	88.91	3.2	6.46	101.4	-194	75-125	0			BSO
Zinc	115.3	6.5	6.46	172	-878	75-125	0			BSO

MSD Sample ID: **20020850-24BMSD** Units: **mg/Kg** Analysis Date: **2/18/2020 08:41 PM**
Client ID: **S-11 5-10'** Run ID: **ICPMS3_200218B** SeqNo: **6256891** Prep Date: **2/17/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	8.669	0.33	6.519	3.193	84	75-125	9.43	8.42	20	
Barium	84.99	0.33	6.519	61.3	363	75-125	74.17	13.6	20	BSO
Cadmium	5.21	0.13	6.519	0.2717	75.7	75-125	5.766	10.1	20	
Chromium	23.84	0.33	6.519	13.02	166	75-125	20.79	13.7	20	S
Lead	35.26	0.33	6.519	92.42	-877	75-125	47.88	30.4	20	BSRO
Nickel	22.97	0.33	6.519	15.9	108	75-125	22.89	0.36	20	
Selenium	5.58	0.33	6.519	0.2263	82.1	75-125	5.86	4.89	20	
Silver	4.973	0.33	6.519	0.04309	75.6	75-125	5.011	0.767	20	
Thorium	9.695	0.33	6.519	3.025	102	75-125	9.52	1.82	20	
Uranium	6.925	0.33	6.519	0.7956	94	75-125	7.084	2.27	20	

MSD Sample ID: **20020850-24BMSD** Units: **mg/Kg** Analysis Date: **2/19/2020 04:29 PM**
Client ID: **S-11 5-10'** Run ID: **ICPMS3_200219B** SeqNo: **6261077** Prep Date: **2/17/2020** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	108.3	3.3	6.519	101.4	105	75-125	88.91	19.6	20	BO
Zinc	94.19	6.5	6.519	172	-1190	75-125	115.3	20.1	20	BSRO

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152057** Instrument ID **ICPMS3** Method: **SW6020B**

The following samples were analyzed in this batch:

20020850-20B	20020850-21B	20020850-22B
20020850-23B	20020850-24B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152081** Instrument ID **ICPMS3** Method: **SW6020B**

MBLK Sample ID: **MBLK-152081-152081** Units: **mg/L** Analysis Date: **2/18/2020 02:06 PM**
Client ID: Run ID: **ICPMS3_200218A** SeqNo: **6255968** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.0050								
Barium	ND	0.0050								
Cadmium	ND	0.0020								
Chromium	ND	0.0050								
Copper	ND	0.0050								
Lead	ND	0.0050								
Nickel	ND	0.0050								
Selenium	ND	0.0050								
Thorium	ND	0.0050								
Uranium	ND	0.0050								
Zinc	ND	0.010								

MBLK Sample ID: **MBLK-152081-152081** Units: **mg/L** Analysis Date: **2/18/2020 03:07 PM**
Client ID: Run ID: **ICPMS3_200218A** SeqNo: **6256257** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Silver	ND	0.0050								

LCS Sample ID: **LCS-152081-152081** Units: **mg/L** Analysis Date: **2/18/2020 02:08 PM**
Client ID: Run ID: **ICPMS3_200218A** SeqNo: **6255969** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.09383	0.0050	0.1	0	93.8	80-120	0			
Barium	0.09297	0.0050	0.1	0	93	80-120	0			
Cadmium	0.09471	0.0020	0.1	0	94.7	80-120	0			
Chromium	0.09571	0.0050	0.1	0	95.7	80-120	0			
Copper	0.09514	0.0050	0.1	0	95.1	80-120	0			
Lead	0.09431	0.0050	0.1	0	94.3	80-120	0			
Nickel	0.09655	0.0050	0.1	0	96.5	80-120	0			
Selenium	0.09596	0.0050	0.1	0	96	80-120	0			
Silver	0.1022	0.0050	0.1	0	102	80-120	0			
Thorium	0.08723	0.0050	0.1	0	87.2	80-120	0			
Uranium	0.08639	0.0050	0.1	0	86.4	80-120	0			
Zinc	0.09346	0.010	0.1	0	93.5	80-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152081** Instrument ID **ICPMS3** Method: **SW6020B**

MS Sample ID: **20020850-07DMS** Units: **mg/L** Analysis Date: **2/18/2020 02:17 PM**

Client ID: **A2** Run ID: **ICPMS3_200218A** SeqNo: **6255976** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.09306	0.0050	0.1	0.00011	93	75-125	0			
Barium	0.0931	0.0050	0.1	0.0006281	92.5	75-125	0			
Cadmium	0.09401	0.0020	0.1	-0.0000033	94	75-125	0			
Chromium	0.09724	0.0050	0.1	0.001625	95.6	75-125	0			
Copper	0.09568	0.0050	0.1	0.0001221	95.6	75-125	0			
Lead	0.09389	0.0050	0.1	0.000055	93.8	75-125	0			
Nickel	0.09659	0.0050	0.1	0.0000638	96.5	75-125	0			
Selenium	0.09362	0.0050	0.1	0.000561	93.1	75-125	0			
Silver	0.0977	0.0050	0.1	0.001676	96	75-125	0			
Thorium	0.0874	0.0050	0.1	0.0000319	87.4	75-125	0			
Uranium	0.08624	0.0050	0.1	0.0000044	86.2	75-125	0			
Zinc	0.09486	0.010	0.1	0.0004741	94.4	75-125	0			

MSD Sample ID: **20020850-07DMSD** Units: **mg/L** Analysis Date: **2/18/2020 02:19 PM**

Client ID: **A2** Run ID: **ICPMS3_200218A** SeqNo: **6255977** Prep Date: **2/18/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.09272	0.0050	0.1	0.00011	92.6	75-125	0.09306	0.371	20	
Barium	0.09499	0.0050	0.1	0.0006281	94.4	75-125	0.0931	2	20	
Cadmium	0.09629	0.0020	0.1	-0.0000033	96.3	75-125	0.09401	2.4	20	
Chromium	0.09734	0.0050	0.1	0.001625	95.7	75-125	0.09724	0.101	20	
Copper	0.09606	0.0050	0.1	0.0001221	95.9	75-125	0.09568	0.395	20	
Lead	0.09671	0.0050	0.1	0.000055	96.7	75-125	0.09389	2.96	20	
Nickel	0.09599	0.0050	0.1	0.0000638	95.9	75-125	0.09659	0.626	20	
Selenium	0.08965	0.0050	0.1	0.000561	89.1	75-125	0.09362	4.34	20	
Silver	0.09976	0.0050	0.1	0.001676	98.1	75-125	0.0977	2.08	20	
Thorium	0.08762	0.0050	0.1	0.0000319	87.6	75-125	0.0874	0.259	20	
Uranium	0.08738	0.0050	0.1	0.0000044	87.4	75-125	0.08624	1.31	20	
Zinc	0.09466	0.010	0.1	0.0004741	94.2	75-125	0.09486	0.211	20	

The following samples were analyzed in this batch:

20020850-07D	20020850-08D	20020850-28D

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152510** Instrument ID **ICPMS3** Method: **SW6020B**

MBLK Sample ID: **MBLK-152510-152510** Units: **mg/L** Analysis Date: **2/26/2020 06:17 PM**
Client ID: Run ID: **ICPMS3_200226A** SeqNo: **6273223** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	ND	0.0050								

MBLK Sample ID: **MBLK-152510-152510** Units: **mg/L** Analysis Date: **2/27/2020 03:42 PM**
Client ID: Run ID: **ICPMS3_200227A** SeqNo: **6276441** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	0.04189	0.0050								

LCS Sample ID: **LCS-152510-152510** Units: **mg/L** Analysis Date: **2/26/2020 06:18 PM**
Client ID: Run ID: **ICPMS3_200226A** SeqNo: **6273224** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	0.1044	0.0050	0.1	0	104	80-120	0			B
Lead	0.1004	0.0050	0.1	0	100	80-120	0			

MS Sample ID: **20021363-01BMS** Units: **mg/L** Analysis Date: **2/26/2020 06:53 PM**
Client ID: Run ID: **ICPMS3_200226A** SeqNo: **6273244** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	0.1237	0.0050	0.1	0.0005016	123	75-125	0			B
Lead	0.0988	0.0050	0.1	0.0000308	98.8	75-125	0			

MSD Sample ID: **20021363-01BMSD** Units: **mg/L** Analysis Date: **2/26/2020 06:55 PM**
Client ID: Run ID: **ICPMS3_200226A** SeqNo: **6273245** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	0.1008	0.0050	0.1	0.0005016	100	75-125	0.1237	20.4	20	BR
Lead	0.09765	0.0050	0.1	0.0000308	97.6	75-125	0.0988	1.17	20	

The following samples were analyzed in this batch:

20020850-29A	20020850-36A	20020850-39A
20020850-41A	20020850-44A	20020850-49A
20020850-50A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151876** Instrument ID **SVMS6** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-151876-151876** Units: **µg/Kg** Analysis Date: **2/15/2020 07:27 PM**

Client ID: Run ID: **SVMS6_200215A** SeqNo: **6252564** Prep Date: **2/13/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	4.2								
2-Chloronaphthalene	ND	4.2								
2-Methylnaphthalene	ND	4.2								
Acenaphthene	ND	4.2								
Acenaphthylene	ND	4.2								
Anthracene	ND	4.2								
Benzo(a)anthracene	ND	4.2								
Benzo(a)pyrene	ND	4.2								
Benzo(b)fluoranthene	ND	4.2								
Benzo(g,h,i)perylene	ND	4.2								
Benzo(k)fluoranthene	ND	4.2								
Chrysene	ND	4.2								
Dibenzo(a,h)anthracene	ND	4.2								
Fluoranthene	ND	4.2								
Fluorene	ND	4.2								
Indeno(1,2,3-cd)pyrene	ND	4.2								
Naphthalene	ND	4.2								
Phenanthrene	ND	4.2								
Pyrene	ND	4.2								
Surr: 2-Fluorobiphenyl	*3037*	0	*3333*	0	*91.1*	*20-140*	0			
Surr: 4-Terphenyl-d14	*2548*	0	*3333*	0	*76.5*	*22-172*	0			
Surr: Nitrobenzene-d5	*2510*	0	*3333*	0	*75.3*	*28-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151876** Instrument ID **SVMS6** Method: **SW846 8270D**

LCS Sample ID: **SLCSS1-151876-151876** Units: **µg/Kg** Analysis Date: **2/15/2020 07:43 PM**

Client ID: Run ID: **SVMS6_200215A** SeqNo: **6252565** Prep Date: **2/13/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1149	4.2	1333	0	86.2	40-140	0			
2-Chloronaphthalene	1252	4.2	1333	0	93.9	40-140	0			
2-Methylnaphthalene	1278	4.2	1333	0	95.9	40-140	0			
Acenaphthene	1218	4.2	1333	0	91.3	40-140	0			
Acenaphthylene	1282	4.2	1333	0	96.1	40-140	0			
Anthracene	1206	4.2	1333	0	90.4	40-140	0			
Benzo(a)anthracene	1212	4.2	1333	0	90.9	40-140	0			
Benzo(a)pyrene	1145	4.2	1333	0	85.9	40-140	0			
Benzo(b)fluoranthene	1133	4.2	1333	0	85	40-140	0			
Benzo(g,h,i)perylene	1246	4.2	1333	0	93.5	40-140	0			
Benzo(k)fluoranthene	1155	4.2	1333	0	86.6	40-140	0			
Chrysene	1220	4.2	1333	0	91.5	40-140	0			
Dibenzo(a,h)anthracene	1170	4.2	1333	0	87.8	40-140	0			
Fluoranthene	1235	4.2	1333	0	92.6	40-140	0			
Fluorene	1081	4.2	1333	0	81.1	40-140	0			
Indeno(1,2,3-cd)pyrene	1244	4.2	1333	0	93.4	40-140	0			
Naphthalene	1195	4.2	1333	0	89.6	40-140	0			
Phenanthrene	1163	4.2	1333	0	87.2	40-140	0			
Pyrene	1268	4.2	1333	0	95.1	40-140	0			
Surr: 2-Fluorobiphenyl	*3669*	0	*3333*	0	*110*	*20-140*	0			
Surr: 4-Terphenyl-d14	*3060*	0	*3333*	0	*91.8*	*22-172*	0			
Surr: Nitrobenzene-d5	*2755*	0	*3333*	0	*82.7*	*28-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151876** Instrument ID **SVMS6** Method: **SW846 8270D**

MS Sample ID: **20020823-04A MS** Units: **µg/Kg** Analysis Date: **2/15/2020 07:58 PM**

Client ID: Run ID: **SVMS6_200215A** SeqNo: **6252566** Prep Date: **2/13/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1084	4.1	1308	0	82.9	40-140	0			
2-Chloronaphthalene	1193	4.1	1308	0	91.2	40-140	0			
2-Methylnaphthalene	1233	4.1	1308	0	94.2	40-140	0			
Acenaphthene	1152	4.1	1308	0	88.1	40-140	0			
Acenaphthylene	1220	4.1	1308	0	93.3	40-140	0			
Anthracene	1169	4.1	1308	0	89.3	40-140	0			
Benzo(a)anthracene	1171	4.1	1308	0	89.5	40-140	0			
Benzo(a)pyrene	1098	4.1	1308	0	84	40-140	0			
Benzo(b)fluoranthene	1097	4.1	1308	0	83.8	40-140	0			
Benzo(g,h,i)perylene	1196	4.1	1308	0	91.4	40-140	0			
Benzo(k)fluoranthene	1097	4.1	1308	0	83.9	40-140	0			
Chrysene	1175	4.1	1308	0	89.8	40-140	0			
Dibenzo(a,h)anthracene	1130	4.1	1308	0	86.4	40-140	0			
Fluoranthene	1194	4.1	1308	3.132	91	40-140	0			
Fluorene	1038	4.1	1308	0	79.3	40-140	0			
Indeno(1,2,3-cd)pyrene	1167	4.1	1308	0	89.2	40-140	0			
Naphthalene	1139	4.1	1308	0	87.1	40-140	0			
Phenanthrene	1115	4.1	1308	0	85.3	40-140	0			
Pyrene	1213	4.1	1308	2.749	92.5	40-140	0			
Surr: 2-Fluorobiphenyl	*3514*	0	*3271*	0	*107*	*20-140*	0			
Surr: 4-Terphenyl-d14	*2975*	0	*3271*	0	*90.9*	*22-172*	0			
Surr: Nitrobenzene-d5	*2738*	0	*3271*	0	*83.7*	*28-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151876** Instrument ID **SVMS6** Method: **SW846 8270D**

MSD Sample ID: **20020823-04A MSD** Units: **µg/Kg** Analysis Date: **2/15/2020 08:14 PM**

Client ID: Run ID: **SVMS6_200215A** SeqNo: **6252567** Prep Date: **2/13/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1085	4.1	1326	0	81.8	40-140	1084	0.0621	30	
2-Chloronaphthalene	1180	4.1	1326	0	89	40-140	1193	1.1	30	
2-Methylnaphthalene	1209	4.1	1326	0	91.2	40-140	1233	1.94	30	
Acenaphthene	1139	4.1	1326	0	85.9	40-140	1152	1.18	30	
Acenaphthylene	1211	4.1	1326	0	91.3	40-140	1220	0.717	30	
Anthracene	1143	4.1	1326	0	86.2	40-140	1169	2.2	30	
Benzo(a)anthracene	1153	4.1	1326	0	87	40-140	1171	1.48	30	
Benzo(a)pyrene	1080	4.1	1326	0	81.4	40-140	1098	1.67	30	
Benzo(b)fluoranthene	1043	4.1	1326	0	78.6	40-140	1097	5.04	30	
Benzo(g,h,i)perylene	1178	4.1	1326	0	88.9	40-140	1196	1.46	30	
Benzo(k)fluoranthene	1105	4.1	1326	0	83.3	40-140	1097	0.686	30	
Chrysene	1143	4.1	1326	0	86.2	40-140	1175	2.78	30	
Dibenzo(a,h)anthracene	1116	4.1	1326	0	84.1	40-140	1130	1.25	30	
Fluoranthene	1172	4.1	1326	3.132	88.1	40-140	1194	1.86	30	
Fluorene	1031	4.1	1326	0	77.8	40-140	1038	0.631	30	
Indeno(1,2,3-cd)pyrene	1176	4.1	1326	0	88.6	40-140	1167	0.712	30	
Naphthalene	1128	4.1	1326	0	85.1	40-140	1139	0.971	30	
Phenanthrene	1092	4.1	1326	0	82.3	40-140	1115	2.15	30	
Pyrene	1172	4.1	1326	2.749	88.2	40-140	1213	3.39	30	
Surr: 2-Fluorobiphenyl	*3459*	0	*3316*	0	*104*	*20-140*	3514	*1.59*	*0*	
Surr: 4-Terphenyl-d14	*2870*	0	*3316*	0	*86.5*	*22-172*	2975	*3.6*	*0*	
Surr: Nitrobenzene-d5	*2626*	0	*3316*	0	*79.2*	*28-140*	2738	*4.18*	*0*	

The following samples were analyzed in this batch:

20020850-01B	20020850-02B	20020850-03B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151886** Instrument ID **SVMS6** Method: **SW846 8270D**

MBLK Sample ID: **SBLKW1-151886-151886** Units: **µg/L** Analysis Date: **2/13/2020 09:30 PM**

Client ID: Run ID: **SVMS6_200213A** SeqNo: **6249877** Prep Date: **2/13/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	0.17								
2-Chloronaphthalene	ND	0.17								
2-Methylnaphthalene	ND	0.17								
Acenaphthene	ND	0.17								
Acenaphthylene	ND	0.17								
Anthracene	ND	0.17								
Benzo(a)anthracene	ND	0.17								
Benzo(a)pyrene	ND	0.17								
Benzo(b)fluoranthene	ND	0.17								
Benzo(g,h,i)perylene	ND	0.17								
Benzo(k)fluoranthene	ND	0.17								
Chrysene	ND	0.17								
Dibenzo(a,h)anthracene	ND	0.17								
Fluoranthene	ND	0.17								
Fluorene	ND	0.17								
Indeno(1,2,3-cd)pyrene	ND	0.17								
Naphthalene	ND	0.17								
Phenanthrene	ND	0.17								
Pyrene	ND	0.17								
Surr: 2-Fluorobiphenyl	*40.67*	0	*41.7*	0	*97.5*	*20-140*	0			
Surr: 4-Terphenyl-d14	*27.99*	0	*41.7*	0	*67.1*	*20-172*	0			
Surr: Nitrobenzene-d5	*15.6*	0	*41.7*	0	*37.4*	*10-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151886** Instrument ID **SVMS6** Method: **SW846 8270D**

LCS Sample ID: **SLCSW1-151886-151886** Units: **µg/L** Analysis Date: **2/13/2020 10:01 PM**

Client ID: Run ID: **SVMS6_200213A** SeqNo: **6249883** Prep Date: **2/13/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	25.29	0.17	33.3	0	76	40-140	0			
2-Chloronaphthalene	28.38	0.17	33.3	0	85.2	40-140	0			
2-Methylnaphthalene	25.4	0.17	33.3	0	76.3	40-140	0			
Acenaphthene	25	0.17	33.3	0	75.1	40-140	0			
Acenaphthylene	25.61	0.17	33.3	0	76.9	40-140	0			
Anthracene	27.03	0.17	33.3	0	81.2	40-140	0			
Benzo(a)anthracene	25.22	0.17	33.3	0	75.8	40-140	0			
Benzo(a)pyrene	25.83	0.17	33.3	0	77.6	40-140	0			
Benzo(b)fluoranthene	29.52	0.17	33.3	0	88.7	40-140	0			
Benzo(g,h,i)perylene	22.01	0.17	33.3	0	66.1	40-140	0			
Benzo(k)fluoranthene	24.44	0.17	33.3	0	73.4	40-140	0			
Chrysene	22.46	0.17	33.3	0	67.4	40-140	0			
Dibenzo(a,h)anthracene	22.9	0.17	33.3	0	68.8	40-140	0			
Fluoranthene	31.33	0.17	33.3	0	94.1	40-140	0			
Fluorene	25.55	0.17	33.3	0	76.7	40-140	0			
Indeno(1,2,3-cd)pyrene	26.31	0.17	33.3	0	79	40-140	0			
Naphthalene	24.98	0.17	33.3	0	75	40-140	0			
Phenanthrene	25.74	0.17	33.3	0	77.3	40-140	0			
Pyrene	15.76	0.17	33.3	0	47.3	40-140	0			
Surr: 2-Fluorobiphenyl	*37.91*	0	*41.7*	0	*90.9*	*20-140*	0			
Surr: 4-Terphenyl-d14	*21.97*	0	*41.7*	0	*52.7*	*20-172*	0			
Surr: Nitrobenzene-d5	*15.91*	0	*41.7*	0	*38.1*	*10-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151886** Instrument ID **SVMS6** Method: **SW846 8270D**

MS Sample ID: **20020437-02C MS** Units: **µg/L** Analysis Date: **2/13/2020 10:17 PM**

Client ID: Run ID: **SVMS6_200213A** SeqNo: **6249886** Prep Date: **2/13/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	383	2.0	399.6	0	95.8	40-140	0			
2-Chloronaphthalene	435.9	2.0	399.6	0	109	40-140	0			
2-Methylnaphthalene	383.7	2.0	399.6	0	96	40-140	0			
Acenaphthene	380.3	2.0	399.6	0	95.2	40-140	0			
Acenaphthylene	393.7	2.0	399.6	0	98.5	40-140	0			
Anthracene	408.6	2.0	399.6	0	102	40-140	0			
Benzo(a)anthracene	379.4	2.0	399.6	0	95	40-140	0			
Benzo(a)pyrene	383.2	2.0	399.6	0	95.9	40-140	0			
Benzo(b)fluoranthene	427.6	2.0	399.6	0	107	40-140	0			
Benzo(g,h,i)perylene	331.7	2.0	399.6	0	83	40-140	0			
Benzo(k)fluoranthene	372.1	2.0	399.6	0	93.1	40-140	0			
Chrysene	339.3	2.0	399.6	0	84.9	40-140	0			
Dibenzo(a,h)anthracene	367.7	2.0	399.6	0	92	40-140	0			
Fluoranthene	473.2	2.0	399.6	0	118	40-140	0			
Fluorene	392	2.0	399.6	0	98.1	40-140	0			
Indeno(1,2,3-cd)pyrene	411.5	2.0	399.6	0	103	40-140	0			
Naphthalene	384	2.0	399.6	0	96.1	40-140	0			
Phenanthrene	390.1	2.0	399.6	0	97.6	40-140	0			
Pyrene	243.2	2.0	399.6	0	60.9	40-140	0			
Surr: 2-Fluorobiphenyl	*544.6*	0	*500.4*	0	*109*	*20-140*	0			
Surr: 4-Terphenyl-d14	*306.5*	0	*500.4*	0	*61.2*	*20-172*	0			
Surr: Nitrobenzene-d5	*230.1*	0	*500.4*	0	*46*	*10-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151886** Instrument ID **SVMS6** Method: **SW846 8270D**

MSD Sample ID: **20020437-02C MSD** Units: **µg/L** Analysis Date: **2/13/2020 10:32 PM**

Client ID: Run ID: **SVMS6_200213A** SeqNo: **6249888** Prep Date: **2/13/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	315.9	2.0	399.6	0	79.1	40-140	383	19.2	30	
2-Chloronaphthalene	350.3	2.0	399.6	0	87.7	40-140	435.9	21.8	30	
2-Methylnaphthalene	312.2	2.0	399.6	0	78.1	40-140	383.7	20.5	30	
Acenaphthene	307.6	2.0	399.6	0	77	40-140	380.3	21.1	30	
Acenaphthylene	319.6	2.0	399.6	0	80	40-140	393.7	20.8	30	
Anthracene	331.1	2.0	399.6	0	82.9	40-140	408.6	20.9	30	
Benzo(a)anthracene	306.1	2.0	399.6	0	76.6	40-140	379.4	21.4	30	
Benzo(a)pyrene	305	2.0	399.6	0	76.3	40-140	383.2	22.7	30	
Benzo(b)fluoranthene	341.9	2.0	399.6	0	85.6	40-140	427.6	22.3	30	
Benzo(g,h,i)perylene	257.4	2.0	399.6	0	64.4	40-140	331.7	25.2	30	
Benzo(k)fluoranthene	293.8	2.0	399.6	0	73.5	40-140	372.1	23.5	30	
Chrysene	272.8	2.0	399.6	0	68.3	40-140	339.3	21.7	30	
Dibenzo(a,h)anthracene	286.3	2.0	399.6	0	71.6	40-140	367.7	24.9	30	
Fluoranthene	375	2.0	399.6	0	93.8	40-140	473.2	23.1	30	
Fluorene	315.8	2.0	399.6	0	79	40-140	392	21.5	30	
Indeno(1,2,3-cd)pyrene	326.1	2.0	399.6	0	81.6	40-140	411.5	23.2	30	
Naphthalene	317.6	2.0	399.6	0	79.5	40-140	384	18.9	30	
Phenanthrene	317	2.0	399.6	0	79.3	40-140	390.1	20.7	30	
Pyrene	194.7	2.0	399.6	0	48.7	40-140	243.2	22.1	30	
Surr: 2-Fluorobiphenyl	*448.5*	0	*500.4*	0	*89.6*	*20-140*	544.6	*19.4*	*30*	
Surr: 4-Terphenyl-d14	*244.1*	0	*500.4*	0	*48.8*	*20-172*	306.5	*22.7*	*30*	
Surr: Nitrobenzene-d5	*196.9*	0	*500.4*	0	*39.4*	*10-140*	230.1	*15.5*	*30*	

The following samples were analyzed in this batch:

20020850-07B	20020850-08B	20020850-28B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152153** Instrument ID **SVMS9** Method: **SW8270D**

MBLK Sample ID: **SBLKW1-152153-152153** Units: **µg/L** Analysis Date: **2/19/2020 05:47 PM**

Client ID: Run ID: **SVMS9_200219A** SeqNo: **6261573** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	ND	5.0								
2,4,5-Trichlorophenol	ND	5.0								
2,4,6-Trichlorophenol	ND	5.0								
2,4-Dinitrotoluene	ND	5.0								
Hexachloro-1,3-butadiene	ND	5.0								
Hexachlorobenzene	ND	5.0								
Hexachloroethane	ND	5.0								
m-Cresol	ND	5.0								
Nitrobenzene	ND	5.0								
o-Cresol	ND	5.0								
p-Cresol	ND	5.0								
Pentachlorophenol	ND	5.0								
Pyridine	ND	10								
Surr: 2,4,6-Tribromophenol	*30.75*	0	*50*	0	*61.5*	*27-83*	0			
Surr: 2-Fluorobiphenyl	*33.08*	0	*50*	0	*66.2*	*26-79*	0			
Surr: 2-Fluorophenol	*28.49*	0	*50*	0	*57*	*13-56*	0			*S*
Surr: 4-Terphenyl-d14	*42.88*	0	*50*	0	*85.8*	*43-106*	0			
Surr: Nitrobenzene-d5	*31.43*	0	*50*	0	*62.9*	*29-80*	0			
Surr: Phenol-d6	*17.04*	0	*50*	0	*34.1*	*10-35*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152153** Instrument ID **SVMS9** Method: **SW8270D**

LCS Sample ID: **SLCSW1-152153-152153** Units: **µg/L** Analysis Date: **2/19/2020 06:12 PM**

Client ID: Run ID: **SVMS9_200219A** SeqNo: **6261574** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	10.48	5.0	20	0	52.4	12-85	0			
2,4,5-Trichlorophenol	13.18	5.0	20	0	65.9	47-84	0			
2,4,6-Trichlorophenol	12.27	5.0	20	0	61.4	45-83	0			
2,4-Dinitrotoluene	13.05	5.0	20	0	65.2	54-93	0			
Hexachloro-1,3-butadiene	11.07	5.0	20	0	55.4	11-83	0			
Hexachlorobenzene	13.02	5.0	20	0	65.1	53-89	0			
Hexachloroethane	10.3	5.0	20	0	51.5	10-85	0			
m-Cresol	11.99	5.0	20	0	60	24-70	0			
Nitrobenzene	11.5	5.0	20	0	57.5	38-86	0			
o-Cresol	13.14	5.0	20	0	65.7	29-76	0			
p-Cresol	11.99	5.0	20	0	60	24-70	0			
Pentachlorophenol	12.16	5.0	20	0	60.8	37-94	0			
Pyridine	8.23	10	20	0	41.2	10-50	0			J
Surr: 2,4,6-Tribromophenol	*30.08*	0	*50*	0	*60.2*	*27-83*	0			
Surr: 2-Fluorobiphenyl	*28.7*	0	*50*	0	*57.4*	*26-79*	0			
Surr: 2-Fluorophenol	*25.08*	0	*50*	0	*50.2*	*13-56*	0			
Surr: 4-Terphenyl-d14	*34.88*	0	*50*	0	*69.8*	*43-106*	0			
Surr: Nitrobenzene-d5	*26.96*	0	*50*	0	*53.9*	*29-80*	0			
Surr: Phenol-d6	*17.01*	0	*50*	0	*34*	*10-35*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152153** Instrument ID **SVMS9** Method: **SW8270D**

MS Sample ID: **20020914-01A MS** Units: **µg/L** Analysis Date: **2/19/2020 06:36 PM**

Client ID: Run ID: **SVMS9_200219A** SeqNo: **6261575** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	216.4	100	400	0	54.1	12-85	0			
2,4,5-Trichlorophenol	280.2	100	400	0	70	47-84	0			
2,4,6-Trichlorophenol	267.8	100	400	0	67	45-83	0			
2,4-Dinitrotoluene	276.8	100	400	0	69.2	54-93	0			
Hexachloro-1,3-butadiene	230.4	100	400	0	57.6	11-83	0			
Hexachlorobenzene	288.8	100	400	0	72.2	53-89	0			
Hexachloroethane	214.8	100	400	0	53.7	10-85	0			
m-Cresol	249	100	400	0	62.2	24-70	0			
Nitrobenzene	248.6	100	400	0	62.2	38-86	0			
o-Cresol	278.4	100	400	0	69.6	29-76	0			
p-Cresol	249	100	400	0	62.2	24-70	0			
Pentachlorophenol	311.4	100	400	0	77.8	37-94	0			
Pyridine	76.8	200	400	0	19.2	10-50	0			J
Surr: 2,4,6-Tribromophenol	*677.2*	0	*1000*	0	*67.7*	*27-83*	0			
Surr: 2-Fluorobiphenyl	*605.6*	0	*1000*	0	*60.6*	*26-79*	0			
Surr: 2-Fluorophenol	*525.8*	0	*1000*	0	*52.6*	*13-56*	0			
Surr: 4-Terphenyl-d14	*759.6*	0	*1000*	0	*76*	*43-106*	0			
Surr: Nitrobenzene-d5	*594.4*	0	*1000*	0	*59.4*	*29-80*	0			
Surr: Phenol-d6	*371.6*	0	*1000*	0	*37.2*	*10-35*	0			*S*

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152153** Instrument ID **SVMS9** Method: **SW8270D**

MSD Sample ID: **20020914-01A MSD** Units: **µg/L** Analysis Date: **2/19/2020 07:00 PM**

Client ID: Run ID: **SVMS9_200219A** SeqNo: **6261576** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	217.6	100	400	0	54.4	12-85	216.4	0.553	30	
2,4,5-Trichlorophenol	258	100	400	0	64.5	47-84	280.2	8.25	30	
2,4,6-Trichlorophenol	248.2	100	400	0	62	45-83	267.8	7.6	30	
2,4-Dinitrotoluene	258.2	100	400	0	64.6	54-93	276.8	6.95	30	
Hexachloro-1,3-butadiene	229.2	100	400	0	57.3	11-83	230.4	0.522	30	
Hexachlorobenzene	257.4	100	400	0	64.4	53-89	288.8	11.5	30	
Hexachloroethane	205.4	100	400	0	51.4	10-85	214.8	4.47	30	
m-Cresol	246.2	100	400	0	61.6	24-70	249	1.13	30	
Nitrobenzene	226.6	100	400	0	56.6	38-86	248.6	9.26	30	
o-Cresol	265.4	100	400	0	66.4	29-76	278.4	4.78	30	
p-Cresol	246.2	100	400	0	61.6	24-70	249	1.13	30	
Pentachlorophenol	285.4	100	400	0	71.4	37-94	311.4	8.71	30	
Pyridine	141.8	200	400	0	35.4	10-50	76.8	0	30	J
Surr: 2,4,6-Tribromophenol	*623.4*	0	*1000*	0	*62.3*	*27-83*	677.2	*8.27*	*40*	
Surr: 2-Fluorobiphenyl	*583*	0	*1000*	0	*58.3*	*26-79*	605.6	*3.8*	*40*	
Surr: 2-Fluorophenol	*529.4*	0	*1000*	0	*52.9*	*13-56*	525.8	*0.682*	*40*	
Surr: 4-Terphenyl-d14	*690.4*	0	*1000*	0	*69*	*43-106*	759.6	*9.54*	*40*	
Surr: Nitrobenzene-d5	*578.4*	0	*1000*	0	*57.8*	*29-80*	594.4	*2.73*	*40*	
Surr: Phenol-d6	*379.4*	0	*1000*	0	*37.9*	*10-35*	371.6	*2.08*	*40*	*S*

The following samples were analyzed in this batch:

20020850-29A	20020850-30A	20020850-31A
20020850-32A	20020850-33A	20020850-34A
20020850-35A	20020850-36A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152195** Instrument ID **SVMS6** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-152195-152195** Units: **µg/Kg** Analysis Date: **2/19/2020 11:12 PM**

Client ID: Run ID: **SVMS6_200219B** SeqNo: **6260660** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	4.2								
2-Chloronaphthalene	ND	4.2								
2-Methylnaphthalene	ND	4.2								
Acenaphthene	ND	4.2								
Acenaphthylene	ND	4.2								
Anthracene	ND	4.2								
Benzo(a)anthracene	ND	4.2								
Benzo(a)pyrene	ND	4.2								
Benzo(b)fluoranthene	ND	4.2								
Benzo(g,h,i)perylene	ND	4.2								
Benzo(k)fluoranthene	ND	4.2								
Chrysene	ND	4.2								
Dibenzo(a,h)anthracene	ND	4.2								
Fluoranthene	ND	4.2								
Fluorene	ND	4.2								
Indeno(1,2,3-cd)pyrene	ND	4.2								
Naphthalene	ND	4.2								
Phenanthrene	ND	4.2								
Pyrene	ND	4.2								
Surr: 2-Fluorobiphenyl	*3112*	0	*3333*	0	*93.4*	*20-140*	0			
Surr: 4-Terphenyl-d14	*3078*	0	*3333*	0	*92.4*	*22-172*	0			
Surr: Nitrobenzene-d5	*2871*	0	*3333*	0	*86.2*	*28-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152195** Instrument ID **SVMS6** Method: **SW846 8270D**

LCS Sample ID: **SLCSS1-152195-152195** Units: **µg/Kg** Analysis Date: **2/19/2020 11:28 PM**

Client ID: Run ID: **SVMS6_200219B** SeqNo: **6260661** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1282	4.2	1333	0	96.2	40-140	0			
2-Chloronaphthalene	1270	4.2	1333	0	95.3	40-140	0			
2-Methylnaphthalene	1337	4.2	1333	0	100	40-140	0			
Acenaphthene	1203	4.2	1333	0	90.2	40-140	0			
Acenaphthylene	1228	4.2	1333	0	92.1	40-140	0			
Anthracene	1305	4.2	1333	0	97.9	40-140	0			
Benzo(a)anthracene	1281	4.2	1333	0	96.1	40-140	0			
Benzo(a)pyrene	1259	4.2	1333	0	94.4	40-140	0			
Benzo(b)fluoranthene	1279	4.2	1333	0	95.9	40-140	0			
Benzo(g,h,i)perylene	1229	4.2	1333	0	92.2	40-140	0			
Benzo(k)fluoranthene	1228	4.2	1333	0	92.1	40-140	0			
Chrysene	1258	4.2	1333	0	94.4	40-140	0			
Dibenzo(a,h)anthracene	1186	4.2	1333	0	89	40-140	0			
Fluoranthene	1293	4.2	1333	0	97	40-140	0			
Fluorene	1236	4.2	1333	0	92.7	40-140	0			
Indeno(1,2,3-cd)pyrene	1316	4.2	1333	0	98.7	40-140	0			
Naphthalene	1293	4.2	1333	0	97	40-140	0			
Phenanthrene	1264	4.2	1333	0	94.8	40-140	0			
Pyrene	971.3	4.2	1333	0	72.9	40-140	0			
Surr: 2-Fluorobiphenyl	*3264*	0	*3333*	0	*97.9*	*20-140*	0			
Surr: 4-Terphenyl-d14	*2880*	0	*3333*	0	*86.4*	*22-172*	0			
Surr: Nitrobenzene-d5	*2778*	0	*3333*	0	*83.3*	*28-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152195** Instrument ID **SVMS6** Method: **SW846 8270D**

MS Sample ID: **20020850-24B MS** Units: **µg/Kg** Analysis Date: **2/19/2020 11:43 PM**

Client ID: **S-11 5-10'** Run ID: **SVMS6_200219B** SeqNo: **6260662** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1278	4.1	1295	12.76	97.7	40-140	0			
2-Chloronaphthalene	1290	4.1	1295	0	99.6	40-140	0			
2-Methylnaphthalene	1387	4.1	1295	0	107	40-140	0			
Acenaphthene	1302	4.1	1295	11.01	99.7	40-140	0			
Acenaphthylene	1287	4.1	1295	0	99.4	40-140	0			
Anthracene	1659	4.1	1295	10.16	127	40-140	0			
Benzo(a)anthracene	1506	4.1	1295	13.01	115	40-140	0			
Benzo(a)pyrene	1285	4.1	1295	10.06	98.5	40-140	0			
Benzo(b)fluoranthene	1375	4.1	1295	11.23	105	40-140	0			
Benzo(g,h,i)perylene	1135	4.1	1295	4.621	87.3	40-140	0			
Benzo(k)fluoranthene	1202	4.1	1295	3.927	92.5	40-140	0			
Chrysene	1374	4.1	1295	15.31	105	40-140	0			
Dibenzo(a,h)anthracene	1130	4.1	1295	0	87.3	40-140	0			
Fluoranthene	1915	4.1	1295	28.31	146	40-140	0			S
Fluorene	1475	4.1	1295	7.381	113	40-140	0			
Indeno(1,2,3-cd)pyrene	1247	4.1	1295	4.81	95.9	40-140	0			
Naphthalene	1350	4.1	1295	0	104	40-140	0			
Phenanthrene	2111	4.1	1295	23.97	161	40-140	0			S
Pyrene	1306	4.1	1295	24.23	99	40-140	0			
Surr: 2-Fluorobiphenyl	*3332*	0	*3237*	0	*103*	*20-140*	0			
Surr: 4-Terphenyl-d14	*2866*	0	*3237*	0	*88.5*	*22-172*	0			
Surr: Nitrobenzene-d5	*2860*	0	*3237*	0	*88.3*	*28-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152195** Instrument ID **SVMS6** Method: **SW846 8270D**

MSD Sample ID: **20020850-24B MSD** Units: **µg/Kg** Analysis Date: **2/19/2020 11:59 PM**

Client ID: **S-11 5-10'** Run ID: **SVMS6_200219B** SeqNo: **6260663** Prep Date: **2/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1071	4.0	1284	12.76	82.4	40-140	1278	17.6	30	
2-Chloronaphthalene	1109	4.0	1284	0	86.4	40-140	1290	15.1	30	
2-Methylnaphthalene	1184	4.0	1284	0	92.2	40-140	1387	15.8	30	
Acenaphthene	1072	4.0	1284	11.01	82.7	40-140	1302	19.4	30	
Acenaphthylene	1072	4.0	1284	0	83.6	40-140	1287	18.2	30	
Anthracene	1178	4.0	1284	10.16	91	40-140	1659	34	30	R
Benzo(a)anthracene	1170	4.0	1284	13.01	90.1	40-140	1506	25.2	30	
Benzo(a)pyrene	1075	4.0	1284	10.06	83	40-140	1285	17.8	30	
Benzo(b)fluoranthene	1093	4.0	1284	11.23	84.3	40-140	1375	22.9	30	
Benzo(g,h,i)perylene	960.6	4.0	1284	4.621	74.5	40-140	1135	16.7	30	
Benzo(k)fluoranthene	1034	4.0	1284	3.927	80.2	40-140	1202	15.1	30	
Chrysene	1119	4.0	1284	15.31	86	40-140	1374	20.5	30	
Dibenzo(a,h)anthracene	958.2	4.0	1284	0	74.7	40-140	1130	16.4	30	
Fluoranthene	1200	4.0	1284	28.31	91.3	40-140	1915	46	30	R
Fluorene	1091	4.0	1284	7.381	84.4	40-140	1475	30	30	
Indeno(1,2,3-cd)pyrene	1056	4.0	1284	4.81	81.9	40-140	1247	16.6	30	
Naphthalene	1148	4.0	1284	0	89.5	40-140	1350	16.1	30	
Phenanthrene	1140	4.0	1284	23.97	86.9	40-140	2111	59.7	30	R
Pyrene	918	4.0	1284	24.23	69.6	40-140	1306	34.9	30	R
Surr: 2-Fluorobiphenyl	*2978*	0	*3209*	0	*92.8*	*20-140*	3332	*11.2*	*0*	
Surr: 4-Terphenyl-d14	*2641*	0	*3209*	0	*82.3*	*22-172*	2866	*8.17*	*0*	
Surr: Nitrobenzene-d5	*2565*	0	*3209*	0	*79.9*	*28-140*	2860	*10.9*	*0*	

The following samples were analyzed in this batch:

20020850-04B	20020850-05B	20020850-09B
20020850-10B	20020850-11B	20020850-12B
20020850-13B	20020850-14B	20020850-15B
20020850-16B	20020850-17B	20020850-18B
20020850-19B	20020850-20B	20020850-21B
20020850-22B	20020850-23B	20020850-24B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152223** Instrument ID **SVMS9** Method: **SW8270D**

MBLK Sample ID: **SBLKW1-152223-152223** Units: **µg/L** Analysis Date: **2/21/2020 02:54 PM**

Client ID: Run ID: **SVMS9_200221A** SeqNo: **6267763** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	ND	5.0								
2,4,5-Trichlorophenol	ND	5.0								
2,4,6-Trichlorophenol	ND	5.0								
2,4-Dinitrotoluene	ND	5.0								
Hexachloro-1,3-butadiene	ND	5.0								
Hexachlorobenzene	ND	5.0								
Hexachloroethane	ND	5.0								
m-Cresol	ND	5.0								
Nitrobenzene	ND	5.0								
o-Cresol	ND	5.0								
p-Cresol	ND	5.0								
Pentachlorophenol	ND	5.0								
Pyridine	ND	10								
Surr: 2,4,6-Tribromophenol	*28.51*	0	*50*	0	*57*	*27-83*		0		
Surr: 2-Fluorobiphenyl	*28.43*	0	*50*	0	*56.9*	*26-79*		0		
Surr: 2-Fluorophenol	*18.02*	0	*50*	0	*36*	*13-56*		0		
Surr: 4-Terphenyl-d14	*40.64*	0	*50*	0	*81.3*	*43-106*		0		
Surr: Nitrobenzene-d5	*27.57*	0	*50*	0	*55.1*	*29-80*		0		
Surr: Phenol-d6	*11.01*	0	*50*	0	*22*	*10-35*		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152223** Instrument ID **SVMS9** Method: **SW8270D**

LCS Sample ID: **SLCSW1-152223-152223** Units: **µg/L** Analysis Date: **2/21/2020 03:19 PM**

Client ID: Run ID: **SVMS9_200221A** SeqNo: **6267764** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	13.05	5.0	20	0	65.2	12-85	0			
2,4,5-Trichlorophenol	14.29	5.0	20	0	71.4	47-84	0			
2,4,6-Trichlorophenol	14.76	5.0	20	0	73.8	45-83	0			
2,4-Dinitrotoluene	14.91	5.0	20	0	74.6	54-93	0			
Hexachloro-1,3-butadiene	13.37	5.0	20	0	66.8	11-83	0			
Hexachlorobenzene	15.62	5.0	20	0	78.1	53-89	0			
Hexachloroethane	12.48	5.0	20	0	62.4	10-85	0			
m-Cresol	11.55	5.0	20	0	57.8	24-70	0			
Nitrobenzene	14.08	5.0	20	0	70.4	38-86	0			
o-Cresol	12.52	5.0	20	0	62.6	29-76	0			
p-Cresol	11.55	5.0	20	0	57.8	24-70	0			
Pentachlorophenol	10.22	5.0	20	0	51.1	37-94	0			
Pyridine	4.54	10	20	0	22.7	10-50	0			J
Surr: 2,4,6-Tribromophenol	*37.22*	0	*50*	0	*74.4*	*27-83*	0			
Surr: 2-Fluorobiphenyl	*34.51*	0	*50*	0	*69*	*26-79*	0			
Surr: 2-Fluorophenol	*20.55*	0	*50*	0	*41.1*	*13-56*	0			
Surr: 4-Terphenyl-d14	*41.48*	0	*50*	0	*83*	*43-106*	0			
Surr: Nitrobenzene-d5	*33.36*	0	*50*	0	*66.7*	*29-80*	0			
Surr: Phenol-d6	*12.46*	0	*50*	0	*24.9*	*10-35*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152223** Instrument ID **SVMS9** Method: **SW8270D**

MS Sample ID: **20020850-37A MS** Units: **µg/L** Analysis Date: **2/21/2020 03:43 PM**

Client ID: **S-2 7-12' TCLP** Run ID: **SVMS9_200221A** SeqNo: **6267765** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	240	100	400	0	60	12-85	0			
2,4,5-Trichlorophenol	299.8	100	400	0	75	47-84	0			
2,4,6-Trichlorophenol	282.6	100	400	0	70.6	45-83	0			
2,4-Dinitrotoluene	297.6	100	400	0	74.4	54-93	0			
Hexachloro-1,3-butadiene	243.8	100	400	0	61	11-83	0			
Hexachlorobenzene	301	100	400	0	75.2	53-89	0			
Hexachloroethane	226.8	100	400	0	56.7	10-85	0			
m-Cresol	227.4	100	400	0	56.8	24-70	0			
Nitrobenzene	266	100	400	0	66.5	38-86	0			
o-Cresol	242.8	100	400	0	60.7	29-76	0			
p-Cresol	227.4	100	400	0	56.8	24-70	0			
Pentachlorophenol	232	100	400	0	58	37-94	0			
Pyridine	97.8	200	400	0	24.4	10-50	0			J
Surr: 2,4,6-Tribromophenol	*734.4*	0	*1000*	0	*73.4*	*27-83*	0			
Surr: 2-Fluorobiphenyl	*660.2*	0	*1000*	0	*66*	*26-79*	0			
Surr: 2-Fluorophenol	*430.8*	0	*1000*	0	*43.1*	*13-56*	0			
Surr: 4-Terphenyl-d14	*831.4*	0	*1000*	0	*83.1*	*43-106*	0			
Surr: Nitrobenzene-d5	*660.2*	0	*1000*	0	*66*	*29-80*	0			
Surr: Phenol-d6	*265.8*	0	*1000*	0	*26.6*	*10-35*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152223** Instrument ID **SVMS9** Method: **SW8270D**

MSD Sample ID: **20020850-37A MSD** Units: **µg/L** Analysis Date: **2/21/2020 04:08 PM**

Client ID: **S-2 7-12' TCLP** Run ID: **SVMS9_200221A** SeqNo: **6267766** Prep Date: **2/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	251.6	100	400	0	62.9	12-85	240	4.72	30	
2,4,5-Trichlorophenol	289.6	100	400	0	72.4	47-84	299.8	3.46	30	
2,4,6-Trichlorophenol	290.4	100	400	0	72.6	45-83	282.6	2.72	30	
2,4-Dinitrotoluene	306.2	100	400	0	76.6	54-93	297.6	2.85	30	
Hexachloro-1,3-butadiene	267.8	100	400	0	67	11-83	243.8	9.38	30	
Hexachlorobenzene	305.6	100	400	0	76.4	53-89	301	1.52	30	
Hexachloroethane	250.8	100	400	0	62.7	10-85	226.8	10.1	30	
m-Cresol	211.4	100	400	0	52.8	24-70	227.4	7.29	30	
Nitrobenzene	254.6	100	400	0	63.6	38-86	266	4.38	30	
o-Cresol	228.2	100	400	0	57	29-76	242.8	6.2	30	
p-Cresol	211.4	100	400	0	52.8	24-70	227.4	7.29	30	
Pentachlorophenol	234.2	100	400	0	58.6	37-94	232	0.944	30	
Pyridine	104.2	200	400	0	26	10-50	97.8	0	30	J
Surr: 2,4,6-Tribromophenol	*764*	0	*1000*	0	*76.4*	*27-83*	734.4	*3.95*	*40*	
Surr: 2-Fluorobiphenyl	*659*	0	*1000*	0	*65.9*	*26-79*	660.2	*0.182*	*40*	
Surr: 2-Fluorophenol	*379.2*	0	*1000*	0	*37.9*	*13-56*	430.8	*12.7*	*40*	
Surr: 4-Terphenyl-d14	*845.8*	0	*1000*	0	*84.6*	*43-106*	831.4	*1.72*	*40*	
Surr: Nitrobenzene-d5	*642.8*	0	*1000*	0	*64.3*	*29-80*	660.2	*2.67*	*40*	
Surr: Phenol-d6	*231.6*	0	*1000*	0	*23.2*	*10-35*	265.8	*13.8*	*40*	

The following samples were analyzed in this batch:

20020850-37A	20020850-39A	20020850-41A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152288** Instrument ID **SVMS9** Method: **SW8270D**

MBLK Sample ID: **SBLKW1-152288-152288** Units: **µg/L** Analysis Date: **2/24/2020 03:10 PM**

Client ID: Run ID: **SVMS9_200224A** SeqNo: **6268915** Prep Date: **2/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	ND	5.0								
2,4,5-Trichlorophenol	ND	5.0								
2,4,6-Trichlorophenol	ND	5.0								
2,4-Dinitrotoluene	ND	5.0								
Hexachloro-1,3-butadiene	ND	5.0								
Hexachlorobenzene	ND	5.0								
Hexachloroethane	ND	5.0								
m-Cresol	ND	5.0								
Nitrobenzene	ND	5.0								
o-Cresol	ND	5.0								
p-Cresol	ND	5.0								
Pentachlorophenol	ND	5.0								
Pyridine	ND	10								
Surr: 2,4,6-Tribromophenol	*28.93*	0	*50*	0	*57.9*	*27-83*		0		
Surr: 2-Fluorobiphenyl	*26.04*	0	*50*	0	*52.1*	*26-79*		0		
Surr: 2-Fluorophenol	*19.89*	0	*50*	0	*39.8*	*13-56*		0		
Surr: 4-Terphenyl-d14	*37.89*	0	*50*	0	*75.8*	*43-106*		0		
Surr: Nitrobenzene-d5	*25.56*	0	*50*	0	*51.1*	*29-80*		0		
Surr: Phenol-d6	*12.72*	0	*50*	0	*25.4*	*10-35*		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152288** Instrument ID **SVMS9** Method: **SW8270D**

LCS Sample ID: **SLCSW1-152288-152288** Units: **µg/L** Analysis Date: **2/24/2020 03:35 PM**

Client ID: Run ID: **SVMS9_200224A** SeqNo: **6268917** Prep Date: **2/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	11.54	5.0	20	0	57.7	12-85	0			
2,4,5-Trichlorophenol	15.03	5.0	20	0	75.2	47-84	0			
2,4,6-Trichlorophenol	13.64	5.0	20	0	68.2	45-83	0			
2,4-Dinitrotoluene	14.33	5.0	20	0	71.6	54-93	0			
Hexachloro-1,3-butadiene	12.48	5.0	20	0	62.4	11-83	0			
Hexachlorobenzene	14.42	5.0	20	0	72.1	53-89	0			
Hexachloroethane	11.87	5.0	20	0	59.4	10-85	0			
m-Cresol	10.69	5.0	20	0	53.4	24-70	0			
Nitrobenzene	12.05	5.0	20	0	60.2	38-86	0			
o-Cresol	11.67	5.0	20	0	58.4	29-76	0			
p-Cresol	10.69	5.0	20	0	53.4	24-70	0			
Pentachlorophenol	12.89	5.0	20	0	64.4	37-94	0			
Pyridine	5.34	10	20	0	26.7	10-50	0			J
Surr: 2,4,6-Tribromophenol	*36.4*	0	*50*	0	*72.8*	*27-83*	0			
Surr: 2-Fluorobiphenyl	*31.84*	0	*50*	0	*63.7*	*26-79*	0			
Surr: 2-Fluorophenol	*19.77*	0	*50*	0	*39.5*	*13-56*	0			
Surr: 4-Terphenyl-d14	*38.37*	0	*50*	0	*76.7*	*43-106*	0			
Surr: Nitrobenzene-d5	*29.4*	0	*50*	0	*58.8*	*29-80*	0			
Surr: Phenol-d6	*12.3*	0	*50*	0	*24.6*	*10-35*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152288** Instrument ID **SVMS9** Method: **SW8270D**

MS Sample ID: **20021217-03B MS** Units: **µg/L** Analysis Date: **2/24/2020 09:19 PM**

Client ID: Run ID: **SVMS9_200224A** SeqNo: **6268918** Prep Date: **2/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	216.4	100	400	0	54.1	12-85	0			
2,4,5-Trichlorophenol	305.4	100	400	0	76.4	47-84	0			
2,4,6-Trichlorophenol	280.8	100	400	0	70.2	45-83	0			
2,4-Dinitrotoluene	294	100	400	0	73.5	54-93	0			
Hexachloro-1,3-butadiene	231.6	100	400	0	57.9	11-83	0			
Hexachlorobenzene	286.6	100	400	0	71.6	53-89	0			
Hexachloroethane	201	100	400	0	50.2	10-85	0			
m-Cresol	200.2	100	400	0	50	24-70	0			
Nitrobenzene	243.6	100	400	0	60.9	38-86	0			
o-Cresol	218.4	100	400	0	54.6	29-76	0			
p-Cresol	200.2	100	400	0	50	24-70	0			
Pentachlorophenol	340.6	100	400	0	85.2	37-94	0			
Pyridine	116.4	200	400	0	29.1	10-50	0			J
Surr: 2,4,6-Tribromophenol	*729.8*	0	*1000*	0	*73*	*27-83*	0			
Surr: 2-Fluorobiphenyl	*591*	0	*1000*	0	*59.1*	*26-79*	0			
Surr: 2-Fluorophenol	*382.4*	0	*1000*	0	*38.2*	*13-56*	0			
Surr: 4-Terphenyl-d14	*756*	0	*1000*	0	*75.6*	*43-106*	0			
Surr: Nitrobenzene-d5	*586*	0	*1000*	0	*58.6*	*29-80*	0			
Surr: Phenol-d6	*223.6*	0	*1000*	0	*22.4*	*10-35*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152288** Instrument ID **SVMS9** Method: **SW8270D**

MSD Sample ID: **20021217-03B MSD** Units: **µg/L** Analysis Date: **2/24/2020 09:44 PM**

Client ID: Run ID: **SVMS9_200224A** SeqNo: **6268919** Prep Date: **2/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	219.2	100	400	0	54.8	12-85	216.4	1.29	30	
2,4,5-Trichlorophenol	276.8	100	400	0	69.2	47-84	305.4	9.82	30	
2,4,6-Trichlorophenol	274.8	100	400	0	68.7	45-83	280.8	2.16	30	
2,4-Dinitrotoluene	272.6	100	400	0	68.2	54-93	294	7.55	30	
Hexachloro-1,3-butadiene	243.8	100	400	0	61	11-83	231.6	5.13	30	
Hexachlorobenzene	286.4	100	400	0	71.6	53-89	286.6	0.0698	30	
Hexachloroethane	215.2	100	400	0	53.8	10-85	201	6.82	30	
m-Cresol	221	100	400	0	55.2	24-70	200.2	9.88	30	
Nitrobenzene	244.6	100	400	0	61.2	38-86	243.6	0.41	30	
o-Cresol	233.8	100	400	0	58.4	29-76	218.4	6.81	30	
p-Cresol	221	100	400	0	55.2	24-70	200.2	9.88	30	
Pentachlorophenol	327.6	100	400	0	81.9	37-94	340.6	3.89	30	
Pyridine	130.4	200	400	0	32.6	10-50	116.4	0	30	J
Surr: 2,4,6-Tribromophenol	*721.2*	0	*1000*	0	*72.1*	*27-83*	729.8	*1.19*	*40*	
Surr: 2-Fluorobiphenyl	*601.4*	0	*1000*	0	*60.1*	*26-79*	591	*1.74*	*40*	
Surr: 2-Fluorophenol	*420*	0	*1000*	0	*42*	*13-56*	382.4	*9.37*	*40*	
Surr: 4-Terphenyl-d14	*732.4*	0	*1000*	0	*73.2*	*43-106*	756	*3.17*	*40*	
Surr: Nitrobenzene-d5	*595.8*	0	*1000*	0	*59.6*	*29-80*	586	*1.66*	*40*	
Surr: Phenol-d6	*269.2*	0	*1000*	0	*26.9*	*10-35*	223.6	*18.5*	*40*	

The following samples were analyzed in this batch: 20020850-44A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152489** Instrument ID **SVMS10** Method: **SW8270D**

MBLK Sample ID: **SBLKW1-152489-152489** Units: **µg/L** Analysis Date: **2/26/2020 05:18 PM**

Client ID: Run ID: **SVMS10_200226A** SeqNo: **6273929** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	ND	5.0								
2,4,5-Trichlorophenol	ND	5.0								
2,4,6-Trichlorophenol	ND	5.0								
2,4-Dinitrotoluene	ND	5.0								
Hexachloro-1,3-butadiene	ND	5.0								
Hexachlorobenzene	ND	5.0								
Hexachloroethane	ND	5.0								
m-Cresol	ND	5.0								
Nitrobenzene	ND	5.0								
o-Cresol	ND	5.0								
p-Cresol	ND	5.0								
Pentachlorophenol	ND	5.0								
Pyridine	ND	10								
Surr: 2,4,6-Tribromophenol	*26.59*	0	*50*	0	*53.2*	*27-83*		0		
Surr: 2-Fluorobiphenyl	*29.37*	0	*50*	0	*58.7*	*26-79*		0		
Surr: 2-Fluorophenol	*19.04*	0	*50*	0	*38.1*	*13-56*		0		
Surr: 4-Terphenyl-d14	*38.47*	0	*50*	0	*76.9*	*43-106*		0		
Surr: Nitrobenzene-d5	*28.91*	0	*50*	0	*57.8*	*29-80*		0		
Surr: Phenol-d6	*13.29*	0	*50*	0	*26.6*	*10-35*		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152489** Instrument ID **SVMS10** Method: **SW8270D**

LCS Sample ID: **SLCSW1-152489-152489** Units: **µg/L** Analysis Date: **2/26/2020 05:40 PM**

Client ID: Run ID: **SVMS10_200226A** SeqNo: **6273930** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	11.4	5.0	20	0	57	12-85	0			
2,4,5-Trichlorophenol	13.44	5.0	20	0	67.2	47-84	0			
2,4,6-Trichlorophenol	13.45	5.0	20	0	67.2	45-83	0			
2,4-Dinitrotoluene	16.45	5.0	20	0	82.2	54-93	0			
Hexachloro-1,3-butadiene	11.1	5.0	20	0	55.5	11-83	0			
Hexachlorobenzene	14.17	5.0	20	0	70.8	53-89	0			
Hexachloroethane	11.14	5.0	20	0	55.7	10-85	0			
m-Cresol	12.67	5.0	20	0	63.4	24-70	0			
Nitrobenzene	13.52	5.0	20	0	67.6	38-86	0			
o-Cresol	14.02	5.0	20	0	70.1	29-76	0			
p-Cresol	12.67	5.0	20	0	63.4	24-70	0			
Pentachlorophenol	13.56	5.0	20	0	67.8	37-94	0			
Pyridine	9.31	10	20	0	46.6	10-50	0			J
Surr: 2,4,6-Tribromophenol	*32.91*	0	*50*	0	*65.8*	*27-83*	0			
Surr: 2-Fluorobiphenyl	*30.36*	0	*50*	0	*60.7*	*26-79*	0			
Surr: 2-Fluorophenol	*22.11*	0	*50*	0	*44.2*	*13-56*	0			
Surr: 4-Terphenyl-d14	*35.69*	0	*50*	0	*71.4*	*43-106*	0			
Surr: Nitrobenzene-d5	*31.91*	0	*50*	0	*63.8*	*29-80*	0			
Surr: Phenol-d6	*17.06*	0	*50*	0	*34.1*	*10-35*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152489** Instrument ID **SVMS10** Method: **SW8270D**

MS Sample ID: **20020850-49A MS** Units: **µg/L** Analysis Date: **2/26/2020 06:01 PM**

Client ID: **SB-13 3.5-4.5' TCLP** Run ID: **SVMS10_200226A** SeqNo: **6273931** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	191	100	400	0	47.8	12-85	0			
2,4,5-Trichlorophenol	267.4	100	400	0	66.8	47-84	0			
2,4,6-Trichlorophenol	266.2	100	400	0	66.6	45-83	0			
2,4-Dinitrotoluene	298.4	100	400	0	74.6	54-93	0			
Hexachloro-1,3-butadiene	190.6	100	400	0	47.6	11-83	0			
Hexachlorobenzene	284.4	100	400	0	71.1	53-89	0			
Hexachloroethane	172.8	100	400	0	43.2	10-85	0			
m-Cresol	252	100	400	0	63	24-70	0			
Nitrobenzene	249.8	100	400	0	62.4	38-86	0			
o-Cresol	274.2	100	400	0	68.6	29-76	0			
p-Cresol	252	100	400	0	63	24-70	0			
Pentachlorophenol	288.8	100	400	0	72.2	37-94	0			
Pyridine	152	200	400	0	38	10-50	0			J
Surr: 2,4,6-Tribromophenol	*661.8*	0	*1000*	0	*66.2*	*27-83*	0			
Surr: 2-Fluorobiphenyl	*554.4*	0	*1000*	0	*55.4*	*26-79*	0			
Surr: 2-Fluorophenol	*497.2*	0	*1000*	0	*49.7*	*13-56*	0			
Surr: 4-Terphenyl-d14	*763.8*	0	*1000*	0	*76.4*	*43-106*	0			
Surr: Nitrobenzene-d5	*595.2*	0	*1000*	0	*59.5*	*29-80*	0			
Surr: Phenol-d6	*362.8*	0	*1000*	0	*36.3*	*10-35*	0			*S*

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **152489** Instrument ID **SVMS10** Method: **SW8270D**

MSD Sample ID: **20020850-49A MSD** Units: **µg/L** Analysis Date: **2/26/2020 06:22 PM**

Client ID: **SB-13 3.5-4.5' TCLP** Run ID: **SVMS10_200226A** SeqNo: **6273932** Prep Date: **2/26/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	195.6	100	400	0	48.9	12-85	191	2.38	30	
2,4,5-Trichlorophenol	259.4	100	400	0	64.8	47-84	267.4	3.04	30	
2,4,6-Trichlorophenol	257	100	400	0	64.2	45-83	266.2	3.52	30	
2,4-Dinitrotoluene	287.8	100	400	0	72	54-93	298.4	3.62	30	
Hexachloro-1,3-butadiene	195.4	100	400	0	48.8	11-83	190.6	2.49	30	
Hexachlorobenzene	272	100	400	0	68	53-89	284.4	4.46	30	
Hexachloroethane	193	100	400	0	48.2	10-85	172.8	11	30	
m-Cresol	216.8	100	400	0	54.2	24-70	252	15	30	
Nitrobenzene	228.8	100	400	0	57.2	38-86	249.8	8.78	30	
o-Cresol	238.8	100	400	0	59.7	29-76	274.2	13.8	30	
p-Cresol	216.8	100	400	0	54.2	24-70	252	15	30	
Pentachlorophenol	267.6	100	400	0	66.9	37-94	288.8	7.62	30	
Pyridine	114	200	400	0	28.5	10-50	152	0	30	J
Surr: 2,4,6-Tribromophenol	*643.8*	0	*1000*	0	*64.4*	*27-83*	661.8	*2.76*	*40*	
Surr: 2-Fluorobiphenyl	*568.2*	0	*1000*	0	*56.8*	*26-79*	554.4	*2.46*	*40*	
Surr: 2-Fluorophenol	*397.4*	0	*1000*	0	*39.7*	*13-56*	497.2	*22.3*	*40*	
Surr: 4-Terphenyl-d14	*767.8*	0	*1000*	0	*76.8*	*43-106*	763.8	*0.522*	*40*	
Surr: Nitrobenzene-d5	*547.8*	0	*1000*	0	*54.8*	*29-80*	595.2	*8.29*	*40*	
Surr: Phenol-d6	*299.6*	0	*1000*	0	*30*	*10-35*	362.8	*19.1*	*40*	

The following samples were analyzed in this batch:

20020850-49A	20020850-50A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151891** Instrument ID **VMS6** Method: **SW8260C**

MBLK Sample ID: **MBLK-151891-151891** Units: **µg/Kg-dry** Analysis Date: **2/20/2020 12:55 PM**

Client ID: Run ID: **VMS6_200219A** SeqNo: **6261412** Prep Date: **2/13/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	30								
1,1,1-Trichloroethane	ND	30								
1,1,2,2-Tetrachloroethane	ND	30								
1,1,2-Trichloroethane	ND	30								
1,1,2-Trichlorotrifluoroethane	ND	30								
1,1-Dichloroethane	ND	30								
1,1-Dichloroethene	ND	30								
1,2,3-Trichloropropane	ND	30								
1,2,4-Trichlorobenzene	ND	100								
1,2,4-Trimethylbenzene	ND	30								
1,2-Dibromo-3-chloropropane	ND	100								
1,2-Dibromoethane	ND	30								
1,2-Dichlorobenzene	ND	30								
1,2-Dichloroethane	ND	100								
1,2-Dichloropropane	ND	30								
1,3,5-Trimethylbenzene	ND	100								
1,3-Dichlorobenzene	ND	30								
1,4-Dichlorobenzene	ND	30								
2-Butanone	ND	200								
2-Hexanone	ND	30								
2-Methylnaphthalene	ND	100								
4-Methyl-2-pentanone	ND	30								
Acetone	ND	100								
Acrylonitrile	ND	100								
Benzene	ND	30								
Bromochloromethane	ND	30								
Bromodichloromethane	ND	30								
Bromoform	ND	30								
Bromomethane	ND	100								
Carbon disulfide	ND	30								
Carbon tetrachloride	ND	30								
Chlorobenzene	ND	30								
Chloroethane	ND	100								
Chloroform	ND	30								
Chloromethane	ND	100								
cis-1,2-Dichloroethene	ND	30								
cis-1,3-Dichloropropene	ND	30								
Dibromochloromethane	ND	30								
Dibromomethane	ND	30								
Dichlorodifluoromethane	ND	100								
Diethyl ether	ND	30								
Ethylbenzene	ND	30								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **151891** Instrument ID **VMS6** Method: **SW8260C**

Hexachloroethane	ND	100					
Isopropylbenzene	ND	30					
m,p-Xylene	ND	60					
Methyl iodide	ND	500					
Methyl tert-butyl ether	ND	30					
Methylene chloride	ND	250					
Naphthalene	ND	100					
n-Propylbenzene	ND	30					
o-Xylene	ND	30					
Styrene	ND	30					
Tetrachloroethene	ND	30					
Toluene	ND	30					
trans-1,2-Dichloroethene	ND	30					
trans-1,3-Dichloropropene	ND	30					
trans-1,4-Dichloro-2-butene	ND	30					
Trichloroethene	ND	30					
Trichlorofluoromethane	ND	30					
Vinyl acetate	ND	250					
Vinyl chloride	ND	30					
Xylenes, Total	ND	90					
Surr: 1,2-Dichloroethane-d4	*985*	0	*1000*	0	*98.5*	*70-130*	0
Surr: 4-Bromofluorobenzene	*965*	0	*1000*	0	*96.5*	*70-130*	0
Surr: Dibromofluoromethane	*917.5*	0	*1000*	0	*91.8*	*70-130*	0
Surr: Toluene-d8	*983.5*	0	*1000*	0	*98.4*	*70-130*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151891** Instrument ID **VMS6** Method: **SW8260C**

LCS Sample ID: **LCS-151891-151891** Units: **µg/Kg-dry** Analysis Date: **2/19/2020 11:42 PM**

Client ID: Run ID: **VMS6_200219A** SeqNo: **6261411** Prep Date: **2/13/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	861.5	30	1000	0	86.2	75-125	0			
1,1,1-Trichloroethane	895	30	1000	0	89.5	70-135	0			
1,1,2,2-Tetrachloroethane	953.5	30	1000	0	95.4	55-130	0			
1,1,2-Trichloroethane	981	30	1000	0	98.1	60-125	0			
1,1-Dichloroethane	979.5	30	1000	0	98	75-125	0			
1,1-Dichloroethene	950	30	1000	0	95	76-148	0			
1,2,3-Trichloropropane	921	30	1000	0	92.1	65-130	0			
1,2,4-Trichlorobenzene	857.5	100	1000	0	85.8	65-130	0			
1,2,4-Trimethylbenzene	957.5	30	1000	0	95.8	65-135	0			
1,2-Dibromo-3-chloropropane	771.5	100	1000	0	77.2	40-135	0			
1,2-Dibromoethane	1076	30	1000	0	108	80-195	0			
1,2-Dichlorobenzene	922	30	1000	0	92.2	75-120	0			
1,2-Dichloroethane	1010	100	1000	0	101	70-135	0			
1,2-Dichloropropane	914	30	1000	0	91.4	70-120	0			
1,3,5-Trimethylbenzene	965	100	1000	0	96.5	65-135	0			
1,3-Dichlorobenzene	926.5	30	1000	0	92.6	70-125	0			
1,4-Dichlorobenzene	909.5	30	1000	0	91	70-125	0			
2-Butanone	993	200	1000	0	99.3	30-160	0			
2-Hexanone	992	30	1000	0	99.2	45-145	0			
4-Methyl-2-pentanone	1318	30	1000	0	132	74-176	0			
Acetone	1056	100	1000	0	106	20-160	0			
Acrylonitrile	862	100	1000	0	86.2	70-135	0			
Benzene	977.5	30	1000	0	97.8	75-125	0			
Bromochloromethane	919.5	30	1000	0	92	74-134	0			
Bromodichloromethane	884	30	1000	0	88.4	70-130	0			
Bromoform	721	30	1000	0	72.1	55-135	0			
Bromomethane	1482	100	1000	0	148	50-170	0			
Carbon disulfide	949	30	1000	0	94.9	45-160	0			
Carbon tetrachloride	865	30	1000	0	86.5	65-135	0			
Chlorobenzene	955	30	1000	0	95.5	75-125	0			
Chloroethane	973.5	100	1000	0	97.4	40-155	0			
Chloroform	954.5	30	1000	0	95.4	66-140	0			
Chloromethane	1066	100	1000	0	107	50-144	0			
cis-1,2-Dichloroethene	951	30	1000	0	95.1	65-125	0			
cis-1,3-Dichloropropene	872	30	1000	0	87.2	70-125	0			
Dibromochloromethane	766	30	1000	0	76.6	65-135	0			
Dibromomethane	950	30	1000	0	95	75-130	0			
Dichlorodifluoromethane	1260	100	1000	0	126	35-135	0			
Diethyl ether	1043	30	1000	0	104	67-150	0			
Ethylbenzene	957	30	1000	0	95.7	75-125	0			
Hexachloroethane	888	100	1000	0	88.8	51-122	0			
Isopropylbenzene	939	30	1000	0	93.9	75-130	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **151891** Instrument ID **VMS6** Method: **SW8260C**

m,p-Xylene	1924	60	2000	0	96.2	80-125	0
Methyl iodide	1136	500	1000	0	114	64-180	0
Methyl tert-butyl ether	1232	30	1000	0	123	75-125	0
Methylene chloride	1044	250	1000	0	104	55-145	0
Naphthalene	856.5	100	1000	0	85.6	40-140	0
n-Propylbenzene	938.5	30	1000	0	93.8	65-135	0
o-Xylene	995	30	1000	0	99.5	75-125	0
Styrene	974.5	30	1000	0	97.4	80-138	0
Tetrachloroethene	943	30	1000	0	94.3	67-167	0
Toluene	949.5	30	1000	0	95	70-125	0
trans-1,2-Dichloroethene	993.5	30	1000	0	99.4	65-135	0
trans-1,3-Dichloropropene	773	30	1000	0	77.3	59-129	0
trans-1,4-Dichloro-2-butene	759	30	1000	0	75.9	62-112	0
Trichloroethene	933	30	1000	0	93.3	75-125	0
Trichlorofluoromethane	797	30	1000	0	79.7	25-185	0
Vinyl chloride	921	30	1000	0	92.1	60-125	0
Xylenes, Total	2919	90	3000	0	97.3	75-125	0
Surr: 1,2-Dichloroethane-d4	*994.5*	0	*1000*	0	*99.4*	*70-130*	0
Surr: 4-Bromofluorobenzene	*1012*	0	*1000*	0	*101*	*70-130*	0
Surr: Dibromofluoromethane	*1010*	0	*1000*	0	*101*	*70-130*	0
Surr: Toluene-d8	*1002*	0	*1000*	0	*100*	*70-130*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151891** Instrument ID **VMS6** Method: **SW8260C**

MS Sample ID: **20020850-11A MS** Units: **µg/Kg-dry** Analysis Date: **2/18/2020 07:13 AM**

Client ID: **S-1 4-5'** Run ID: **VMS8_200217B** SeqNo: **6255168** Prep Date: **2/13/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1296	45	1501	0	86.3	75-125	0			
1,1,1-Trichloroethane	1562	45	1501	0	104	70-135	0			
1,1,2,2-Tetrachloroethane	1298	45	1501	0	86.4	55-130	0			
1,1,2-Trichloroethane	1290	45	1501	0	86	60-125	0			
1,1-Dichloroethane	1767	45	1501	0	118	75-125	0			
1,1-Dichloroethene	2052	45	1501	0	137	76-148	0			
1,2,3-Trichloropropane	1293	45	1501	0	86.2	65-130	0			
1,2,4-Trichlorobenzene	1134	150	1501	0	75.6	65-130	0			
1,2,4-Trimethylbenzene	1245	45	1501	8.845	82.4	65-135	0			
1,2-Dibromo-3-chloropropane	1045	150	1501	0	69.6	40-135	0			
1,2-Dibromoethane	1473	45	1501	0	98.2	80-195	0			
1,2-Dichlorobenzene	1184	45	1501	0	78.9	75-120	0			
1,2-Dichloroethane	1666	150	1501	0	111	70-135	0			
1,2-Dichloropropane	1779	45	1501	0	118	70-120	0			
1,3,5-Trimethylbenzene	1277	150	1501	0	85	65-135	0			
1,3-Dichlorobenzene	1173	45	1501	0	78.2	70-125	0			
1,4-Dichlorobenzene	1175	45	1501	0	78.3	70-125	0			
2-Butanone	4819	300	1501	0	321	30-160	0			S
2-Hexanone	1614	45	1501	0	108	45-145	0			
4-Methyl-2-pentanone	2172	45	1501	0	145	74-176	0			
Acetone	2506	150	1501	0	167	20-160	0			S
Acrylonitrile	2207	150	1501	0	147	70-135	0			S
Benzene	1630	45	1501	0	109	75-125	0			
Bromochloromethane	2152	45	1501	0	143	74-134	0			S
Bromodichloromethane	1727	45	1501	0	115	70-130	0			
Bromoform	1073	45	1501	0	71.5	55-135	0			
Bromomethane	3642	150	1501	0	243	50-170	0			S
Carbon disulfide	1953	45	1501	0	130	45-160	0			
Carbon tetrachloride	1377	45	1501	0	91.7	65-135	0			
Chlorobenzene	1278	45	1501	0	85.1	75-125	0			
Chloroethane	1117	150	1501	0	74.4	40-155	0			
Chloroform	1997	45	1501	0	133	66-140	0			
Chloromethane	1676	150	1501	37.74	109	50-144	0			
cis-1,2-Dichloroethene	1907	45	1501	0	127	65-125	0			S
cis-1,3-Dichloropropene	1720	45	1501	0	115	70-125	0			
Dibromochloromethane	1176	45	1501	0	78.4	65-135	0			
Dibromomethane	1653	45	1501	0	110	75-130	0			
Dichlorodifluoromethane	2564	150	1501	0	171	35-135	0			S
Diethyl ether	2163	45	1501	0	144	67-150	0			
Ethylbenzene	1262	45	1501	0	84	75-125	0			
Hexachloroethane	1241	150	1501	0	82.6	51-122	0			
Isopropylbenzene	1293	45	1501	0	86.2	75-130	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **151891** Instrument ID **VMS6** Method: **SW8260C**

m,p-Xylene	2542	90	3003	7.666	84.4	80-125	0	
Methyl iodide	ND	750	1501	0	0	64-180	0	S
Methyl tert-butyl ether	2405	45	1501	0	160	75-125	0	S
Methylene chloride	1773	380	1501	0	118	55-145	0	
Naphthalene	1201	150	1501	50.12	76.7	40-140	0	
n-Propylbenzene	1274	45	1501	0	84.8	65-135	0	
o-Xylene	1295	45	1501	0	86.2	75-125	0	
Styrene	1315	45	1501	0	87.6	80-138	0	
Tetrachloroethene	1685	45	1501	0	112	67-167	0	
Toluene	1301	45	1501	8.845	86.1	70-125	0	
trans-1,2-Dichloroethene	2066	45	1501	0	138	65-135	0	S
trans-1,3-Dichloropropene	1334	45	1501	0	88.8	59-129	0	
trans-1,4-Dichloro-2-butene	1215	45	1501	0	81	62-112	0	
Trichloroethene	1591	45	1501	0	106	75-125	0	
Trichlorofluoromethane	938.3	45	1501	0	62.5	25-185	0	
Vinyl chloride	2057	45	1501	0	137	60-125	0	S
Xylenes, Total	3837	140	4504	0	85.2	75-125	0	
Surr: 1,2-Dichloroethane-d4	*1345*	0	*1501*	0	*89.6*	*70-130*	0	
Surr: 4-Bromofluorobenzene	*1612*	0	*1501*	0	*107*	*70-130*	0	
Surr: Dibromofluoromethane	*1368*	0	*1501*	0	*91.2*	*70-130*	0	
Surr: Toluene-d8	*1249*	0	*1501*	0	*83.2*	*70-130*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151891** Instrument ID **VMS6** Method: **SW8260C**

MS Sample ID: **20020850-11A MS** Units: **µg/Kg-dry** Analysis Date: **2/19/2020 05:36 PM**

Client ID: **S-1 4-5'** Run ID: **VMS7_200219A** SeqNo: **6259928** Prep Date: **2/13/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1308	45	1501	0	87.1	75-125	0			
1,1,1-Trichloroethane	1470	45	1501	0	98	70-135	0			
1,1,2,2-Tetrachloroethane	1451	45	1501	0	96.6	55-130	0			
1,1,2-Trichloroethane	1381	45	1501	0	92	60-125	0			
1,1-Dichloroethane	1428	45	1501	0	95.2	75-125	0			
1,1-Dichloroethene	1576	45	1501	0	105	76-148	0			
1,2,3-Trichloropropane	1452	45	1501	0	96.7	65-130	0			
1,2,4-Trichlorobenzene	1621	150	1501	0	108	65-130	0			
1,2,4-Trimethylbenzene	1363	45	1501	0	90.8	65-135	0			
1,2-Dibromo-3-chloropropane	1103	150	1501	0	73.5	40-135	0			
1,2-Dibromoethane	1389	45	1501	0	92.5	80-195	0			
1,2-Dichlorobenzene	1336	45	1501	0	89	75-120	0			
1,2-Dichloroethane	1472	150	1501	0	98	70-135	0			
1,2-Dichloropropane	1401	45	1501	0	93.4	70-120	0			
1,3,5-Trimethylbenzene	1413	150	1501	0	94.2	65-135	0			
1,3-Dichlorobenzene	1326	45	1501	0	88.4	70-125	0			
1,4-Dichlorobenzene	1281	45	1501	0	85.3	70-125	0			
2-Butanone	2205	300	1501	66.63	142	30-160	0			
2-Hexanone	1865	45	1501	0	124	45-145	0			
4-Methyl-2-pentanone	1975	45	1501	0	132	74-176	0			
Acetone	3155	150	1501	0	210	20-160	0			S
Acrylonitrile	1365	150	1501	0	91	70-135	0			
Benzene	1455	45	1501	0	97	75-125	0			
Bromochloromethane	1556	45	1501	0	104	74-134	0			
Bromodichloromethane	1303	45	1501	0	86.8	70-130	0			
Bromoform	1076	45	1501	0	71.6	55-135	0			
Bromomethane	2511	150	1501	0	167	50-170	0			
Carbon disulfide	1286	45	1501	0	85.6	45-160	0			
Carbon tetrachloride	1275	45	1501	0	85	65-135	0			
Chlorobenzene	1376	45	1501	0	91.6	75-125	0			
Chloroethane	167.4	150	1501	0	11.2	40-155	0			S
Chloroform	1380	45	1501	0	92	66-140	0			
Chloromethane	1042	150	1501	0	69.4	50-144	0			
cis-1,2-Dichloroethene	1592	45	1501	0	106	65-125	0			
cis-1,3-Dichloropropene	1299	45	1501	0	86.5	70-125	0			
Dibromochloromethane	1016	45	1501	0	67.6	65-135	0			
Dibromomethane	1398	45	1501	0	93.1	75-130	0			
Dichlorodifluoromethane	2628	150	1501	0	175	35-135	0			S
Diethyl ether	1354	45	1501	0	90.2	67-150	0			
Ethylbenzene	1395	45	1501	0	92.9	75-125	0			
Hexachloroethane	1065	150	1501	0	71	51-122	0			
Isopropylbenzene	1491	45	1501	0	99.4	75-130	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **151891** Instrument ID **VMS6** Method: **SW8260C**

m,p-Xylene	2934	90	3003	0	97.7	80-125	0	
Methyl iodide	ND	750	1501	0	0	64-180	0	S
Methyl tert-butyl ether	1516	45	1501	0	101	75-125	0	
Methylene chloride	1359	380	1501	0	90.6	55-145	0	
Naphthalene	1651	150	1501	97.89	103	40-140	0	
n-Propylbenzene	1395	45	1501	0	93	65-135	0	
o-Xylene	1413	45	1501	0	94.1	75-125	0	
Styrene	1431	45	1501	0	95.4	80-138	0	
Tetrachloroethene	1462	45	1501	0	97.4	67-167	0	
Toluene	1362	45	1501	0	90.8	70-125	0	
trans-1,2-Dichloroethene	1482	45	1501	0	98.8	65-135	0	
trans-1,3-Dichloropropene	1166	45	1501	0	77.7	59-129	0	
trans-1,4-Dichloro-2-butene	1103	45	1501	0	73.4	62-112	0	
Trichloroethene	1445	45	1501	0	96.2	75-125	0	
Trichlorofluoromethane	1420	45	1501	0	94.6	25-185	0	
Vinyl chloride	1615	45	1501	0	108	60-125	0	
Xylenes, Total	4347	140	4504	0	96.5	75-125	0	
Surr: 1,2-Dichloroethane-d4	*1555*	0	*1501*	0	*104*	*70-130*	0	
Surr: 4-Bromofluorobenzene	*1632*	0	*1501*	0	*109*	*70-130*	0	
Surr: Dibromofluoromethane	*1519*	0	*1501*	0	*101*	*70-130*	0	
Surr: Toluene-d8	*1461*	0	*1501*	0	*97.4*	*70-130*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151891** Instrument ID **VMS6** Method: **SW8260C**

MSD Sample ID: **20020850-11A MSD** Units: **µg/Kg-dry** Analysis Date: **2/18/2020 07:29 AM**
Client ID: **S-1 4-5'** Run ID: **VMS8_200217B** SeqNo: **6255169** Prep Date: **2/13/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1403	47	1577	0	89	75-125	1296	8	30	
1,1,1-Trichloroethane	1718	47	1577	0	109	70-135	1562	9.51	30	
1,1,2,2-Tetrachloroethane	1394	47	1577	0	88.4	55-130	1298	7.15	30	
1,1,2-Trichloroethane	1455	47	1577	0	92.2	60-125	1290	12	30	
1,1-Dichloroethane	1871	47	1577	0	119	75-125	1767	5.72	30	
1,1-Dichloroethene	2059	47	1577	0	131	76-148	2052	0.317	30	
1,2,3-Trichloropropane	1432	47	1577	0	90.8	65-130	1293	10.2	30	
1,2,4-Trichlorobenzene	1345	160	1577	0	85.3	65-130	1134	17	30	
1,2,4-Trimethylbenzene	1362	47	1577	8.845	85.8	65-135	1245	8.99	30	
1,2-Dibromo-3-chloropropane	1178	160	1577	0	74.7	40-135	1045	12	30	
1,2-Dibromoethane	1631	47	1577	0	103	80-195	1473	10.2	30	
1,2-Dichlorobenzene	1329	47	1577	0	84.2	75-120	1184	11.5	30	
1,2-Dichloroethane	1899	160	1577	0	120	70-135	1666	13.1	30	
1,2-Dichloropropane	1874	47	1577	0	119	70-120	1779	5.21	30	
1,3,5-Trimethylbenzene	1344	160	1577	0	85.2	65-135	1277	5.15	30	
1,3-Dichlorobenzene	1313	47	1577	0	83.2	70-125	1173	11.2	30	
1,4-Dichlorobenzene	1288	47	1577	0	81.7	70-125	1175	9.16	30	
2-Butanone	5275	320	1577	0	334	30-160	4819	9.03	30	S
2-Hexanone	1816	47	1577	0	115	45-145	1614	11.8	30	
4-Methyl-2-pentanone	2220	47	1577	0	141	74-176	2172	2.15	30	
Acetone	3217	160	1577	0	204	20-160	2506	24.9	30	S
Acrylonitrile	2240	160	1577	0	142	70-135	2207	1.49	30	S
Benzene	1818	47	1577	0	115	75-125	1630	10.9	30	
Bromochloromethane	2369	47	1577	0	150	74-134	2152	9.58	30	S
Bromodichloromethane	1802	47	1577	0	114	70-130	1727	4.27	30	
Bromoform	1260	47	1577	0	79.9	55-135	1073	16	30	
Bromomethane	3744	160	1577	0	237	50-170	3642	2.75	30	S
Carbon disulfide	2010	47	1577	0	127	45-160	1953	2.86	30	
Carbon tetrachloride	1529	47	1577	0	97	65-135	1377	10.5	30	
Chlorobenzene	1369	47	1577	0	86.8	75-125	1278	6.9	30	
Chloroethane	1251	160	1577	0	79.3	40-155	1117	11.3	30	
Chloroform	2094	47	1577	0	133	66-140	1997	4.73	30	
Chloromethane	1842	160	1577	37.74	114	50-144	1676	9.42	30	
cis-1,2-Dichloroethene	2014	47	1577	0	128	65-125	1907	5.43	30	S
cis-1,3-Dichloropropene	1788	47	1577	0	113	70-125	1720	3.87	30	
Dibromochloromethane	1315	47	1577	0	83.4	65-135	1176	11.2	30	
Dibromomethane	1828	47	1577	0	116	75-130	1653	10.1	30	
Dichlorodifluoromethane	2487	160	1577	0	158	35-135	2564	3.06	30	S
Diethyl ether	2386	47	1577	0	151	67-150	2163	9.82	30	S
Ethylbenzene	1324	47	1577	0	84	75-125	1262	4.8	30	
Hexachloroethane	1377	160	1577	0	87.3	51-122	1241	10.4	30	
Isopropylbenzene	1346	47	1577	0	85.4	75-130	1293	3.99	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **151891** Instrument ID **VMS6** Method: **SW8260C**

m,p-Xylene	2686	95	3154	7.666	84.9	80-125	2542	5.48	30	
Methyl iodide	ND	790	1577	0	0	64-180	0	0	30	S
Methyl tert-butyl ether	2574	47	1577	0	163	75-125	2405	6.77	30	S
Methylene chloride	1882	390	1577	0	119	55-145	1773	5.97	30	
Naphthalene	1453	160	1577	50.12	89	40-140	1201	19	30	
n-Propylbenzene	1316	47	1577	0	83.4	65-135	1274	3.26	30	
o-Xylene	1381	47	1577	0	87.6	75-125	1295	6.47	30	
Styrene	1437	47	1577	0	91.2	80-138	1315	8.89	30	
Tetrachloroethene	2085	47	1577	0	132	67-167	1685	21.2	30	
Toluene	1348	47	1577	8.845	84.9	70-125	1301	3.53	30	
trans-1,2-Dichloroethene	2156	47	1577	0	137	65-135	2066	4.26	30	S
trans-1,3-Dichloropropene	1407	47	1577	0	89.2	59-129	1334	5.31	30	
trans-1,4-Dichloro-2-butene	1333	47	1577	0	84.5	62-112	1215	9.21	30	
Trichloroethene	1717	47	1577	0	109	75-125	1591	7.62	30	
Trichlorofluoromethane	943.8	47	1577	0	59.8	25-185	938.3	0.588	30	
Vinyl chloride	2125	47	1577	0	135	60-125	2057	3.23	30	S
Xylenes, Total	4067	140	4731	0	86	75-125	3837	5.81	30	
Surr: 1,2-Dichloroethane-d4	*1488*	0	*1577*	0	*94.4*	*70-130*	1345	*10.1*	*30*	
Surr: 4-Bromofluorobenzene	*1650*	0	*1577*	0	*105*	*70-130*	1612	*2.33*	*30*	
Surr: Dibromofluoromethane	*1507*	0	*1577*	0	*95.6*	*70-130*	1368	*9.63*	*30*	
Surr: Toluene-d8	*1283*	0	*1577*	0	*81.4*	*70-130*	1249	*2.67*	*30*	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151891** Instrument ID **VMS6** Method: **SW8260C**

MSD Sample ID: **20020850-11A MSD** Units: **µg/Kg-dry** Analysis Date: **2/19/2020 05:52 PM**

Client ID: **S-1 4-5'** Run ID: **VMS7_200219A** SeqNo: **6259929** Prep Date: **2/13/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1448	47	1577	0	91.8	75-125	1308	10.2	30	
1,1,1-Trichloroethane	1601	47	1577	0	102	70-135	1470	8.48	30	
1,1,2,2-Tetrachloroethane	1563	47	1577	0	99.1	55-130	1451	7.42	30	
1,1,2-Trichloroethane	1533	47	1577	0	97.2	60-125	1381	10.4	30	
1,1-Dichloroethane	1626	47	1577	0	103	75-125	1428	12.9	30	
1,1-Dichloroethene	1751	47	1577	0	111	76-148	1576	10.6	30	
1,2,3-Trichloropropane	1545	47	1577	0	98	65-130	1452	6.2	30	
1,2,4-Trichlorobenzene	1745	160	1577	0	111	65-130	1621	7.34	30	
1,2,4-Trimethylbenzene	1493	47	1577	0	94.7	65-135	1363	9.12	30	
1,2-Dibromo-3-chloropropane	1258	160	1577	0	79.8	40-135	1103	13.1	30	
1,2-Dibromoethane	1557	47	1577	0	98.8	80-195	1389	11.4	30	
1,2-Dichlorobenzene	1536	47	1577	0	97.4	75-120	1336	13.9	30	
1,2-Dichloroethane	1579	160	1577	0	100	70-135	1472	7.04	30	
1,2-Dichloropropane	1541	47	1577	0	97.7	70-120	1401	9.47	30	
1,3,5-Trimethylbenzene	1523	160	1577	0	96.6	65-135	1413	7.49	30	
1,3-Dichlorobenzene	1482	47	1577	0	94	70-125	1326	11.1	30	
1,4-Dichlorobenzene	1472	47	1577	0	93.4	70-125	1281	13.9	30	
2-Butanone	2739	320	1577	66.63	169	30-160	2205	21.6	30	S
2-Hexanone	2077	47	1577	0	132	45-145	1865	10.7	30	
4-Methyl-2-pentanone	2228	47	1577	0	141	74-176	1975	12.1	30	
Acetone	3601	160	1577	0	228	20-160	3155	13.2	30	S
Acrylonitrile	1537	160	1577	0	97.4	70-135	1365	11.8	30	
Benzene	1540	47	1577	0	97.6	75-125	1455	5.64	30	
Bromochloromethane	1755	47	1577	0	111	74-134	1556	12	30	
Bromodichloromethane	1427	47	1577	0	90.5	70-130	1303	9.09	30	
Bromoform	1209	47	1577	0	76.6	55-135	1076	11.7	30	
Bromomethane	2459	160	1577	0	156	50-170	2511	2.08	30	
Carbon disulfide	1478	47	1577	0	93.8	45-160	1286	13.9	30	
Carbon tetrachloride	1336	47	1577	0	84.8	65-135	1275	4.68	30	
Chlorobenzene	1486	47	1577	0	94.2	75-125	1376	7.66	30	
Chloroethane	163.2	160	1577	0	10.4	40-155	167.4	2.52	30	S
Chloroform	1578	47	1577	0	100	66-140	1380	13.3	30	
Chloromethane	1208	160	1577	0	76.6	50-144	1042	14.8	30	
cis-1,2-Dichloroethene	1766	47	1577	0	112	65-125	1592	10.4	30	
cis-1,3-Dichloropropene	1420	47	1577	0	90	70-125	1299	8.94	30	
Dibromochloromethane	1168	47	1577	0	74	65-135	1016	13.9	30	
Dibromomethane	1523	47	1577	0	96.6	75-130	1398	8.61	30	
Dichlorodifluoromethane	2965	160	1577	0	188	35-135	2628	12	30	S
Diethyl ether	1511	47	1577	0	95.8	67-150	1354	10.9	30	
Ethylbenzene	1573	47	1577	0	99.8	75-125	1395	12	30	
Hexachloroethane	1170	160	1577	0	74.2	51-122	1065	9.39	30	
Isopropylbenzene	1635	47	1577	0	104	75-130	1491	9.2	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **151891** Instrument ID **VMS6** Method: **SW8260C**

m,p-Xylene	3189	95	3154	0	101	80-125	2934	8.34	30	
Methyl iodide	ND	790	1577	0	0	64-180	0	0	30	S
Methyl tert-butyl ether	1760	47	1577	0	112	75-125	1516	14.9	30	
Methylene chloride	1528	390	1577	0	96.9	55-145	1359	11.7	30	
Naphthalene	1877	160	1577	97.89	113	40-140	1651	12.8	30	
n-Propylbenzene	1542	47	1577	0	97.8	65-135	1395	10	30	
o-Xylene	1559	47	1577	0	98.8	75-125	1413	9.84	30	
Styrene	1614	47	1577	0	102	80-138	1431	12	30	
Tetrachloroethene	1794	47	1577	0	114	67-167	1462	20.4	30	
Toluene	1519	47	1577	0	96.4	70-125	1362	10.9	30	
trans-1,2-Dichloroethene	1687	47	1577	0	107	65-135	1482	12.9	30	
trans-1,3-Dichloropropene	1319	47	1577	0	83.6	59-129	1166	12.3	30	
trans-1,4-Dichloro-2-butene	1165	47	1577	0	73.8	62-112	1103	5.46	30	
Trichloroethene	1573	47	1577	0	99.8	75-125	1445	8.49	30	
Trichlorofluoromethane	1672	47	1577	0	106	25-185	1420	16.3	30	
Vinyl chloride	1843	47	1577	0	117	60-125	1615	13.2	30	
Xylenes, Total	4748	140	4731	0	100	75-125	4347	8.83	30	
Surr: 1,2-Dichloroethane-d4	*1659*	0	*1577*	0	*105*	*70-130*	1555	*6.5*	*30*	
Surr: 4-Bromofluorobenzene	*1681*	0	*1577*	0	*107*	*70-130*	1632	*2.97*	*30*	
Surr: Dibromofluoromethane	*1590*	0	*1577*	0	*101*	*70-130*	1519	*4.62*	*30*	
Surr: Toluene-d8	*1519*	0	*1577*	0	*96.4*	*70-130*	1461	*3.89*	*30*	

The following samples were analyzed in this batch:

20020850-01A	20020850-02A	20020850-03A
20020850-04A	20020850-05A	20020850-09A
20020850-10A	20020850-11A	20020850-12A
20020850-13A	20020850-14A	20020850-15A
20020850-16A	20020850-17A	20020850-18A
20020850-19A	20020850-20A	20020850-21A
20020850-22A	20020850-23A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151956** Instrument ID **VMS11** Method: **SW8260C**

MBLK Sample ID: **MBLK-151956-151956** Units: **µg/Kg-dry** Analysis Date: **2/19/2020 11:06 PM**

Client ID: Run ID: **VMS11_200219A** SeqNo: **6261346** Prep Date: **2/14/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	30								
1,1,1-Trichloroethane	ND	30								
1,1,2,2-Tetrachloroethane	ND	30								
1,1,2-Trichloroethane	ND	30								
1,1,2-Trichlorotrifluoroethane	ND	30								
1,1-Dichloroethane	ND	30								
1,1-Dichloroethene	ND	30								
1,2,3-Trichloropropane	ND	30								
1,2,4-Trichlorobenzene	ND	100								
1,2,4-Trimethylbenzene	ND	30								
1,2-Dibromo-3-chloropropane	ND	100								
1,2-Dibromoethane	ND	30								
1,2-Dichlorobenzene	ND	30								
1,2-Dichloroethane	ND	100								
1,2-Dichloropropane	ND	30								
1,3,5-Trimethylbenzene	ND	100								
1,3-Dichlorobenzene	ND	30								
1,4-Dichlorobenzene	ND	30								
2-Butanone	ND	200								
2-Hexanone	ND	30								
2-Methylnaphthalene	ND	100								
4-Methyl-2-pentanone	ND	30								
Acetone	ND	100								
Acrylonitrile	ND	100								
Benzene	ND	30								
Bromochloromethane	ND	30								
Bromodichloromethane	ND	30								
Bromoform	ND	30								
Bromomethane	ND	100								
Carbon disulfide	ND	30								
Carbon tetrachloride	ND	30								
Chlorobenzene	ND	30								
Chloroethane	ND	100								
Chloroform	ND	30								
Chloromethane	ND	100								
cis-1,2-Dichloroethene	ND	30								
cis-1,3-Dichloropropene	ND	30								
Dibromochloromethane	ND	30								
Dibromomethane	ND	30								
Dichlorodifluoromethane	ND	100								
Diethyl ether	ND	30								
Ethylbenzene	ND	30								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **151956** Instrument ID **VMS11** Method: **SW8260C**

Hexachloroethane	ND	100					
Isopropylbenzene	ND	30					
m,p-Xylene	ND	60					
Methyl iodide	ND	500					
Methyl tert-butyl ether	ND	30					
Methylene chloride	ND	250					
Naphthalene	ND	100					
n-Propylbenzene	ND	30					
o-Xylene	ND	30					
Styrene	ND	30					
Tetrachloroethene	ND	30					
Toluene	ND	30					
trans-1,2-Dichloroethene	ND	30					
trans-1,3-Dichloropropene	ND	30					
trans-1,4-Dichloro-2-butene	ND	30					
Trichloroethene	ND	30					
Trichlorofluoromethane	ND	30					
Vinyl acetate	ND	250					
Vinyl chloride	ND	30					
Xylenes, Total	ND	90					
Surr: 1,2-Dichloroethane-d4	*1012*	0	*1000*	0	*101*	*70-130*	0
Surr: 4-Bromofluorobenzene	*966.5*	0	*1000*	0	*96.6*	*70-130*	0
Surr: Dibromofluoromethane	*1004*	0	*1000*	0	*100*	*70-130*	0
Surr: Toluene-d8	*982.5*	0	*1000*	0	*98.2*	*70-130*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151956** Instrument ID **VMS11** Method: **SW8260C**

LCS Sample ID: **LCS-151956-151956** Units: **µg/Kg-dry** Analysis Date: **2/19/2020 10:00 PM**

Client ID: Run ID: **VMS11_200219A** SeqNo: **6261345** Prep Date: **2/14/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	978.5	30	1000	0	97.8	75-125	0			
1,1,1-Trichloroethane	963.5	30	1000	0	96.4	70-135	0			
1,1,2,2-Tetrachloroethane	852	30	1000	0	85.2	55-130	0			
1,1,2-Trichloroethane	1019	30	1000	0	102	60-125	0			
1,1-Dichloroethane	936	30	1000	0	93.6	75-125	0			
1,1-Dichloroethene	954	30	1000	0	95.4	76-148	0			
1,2,3-Trichloropropane	888	30	1000	0	88.8	65-130	0			
1,2,4-Trichlorobenzene	918	100	1000	0	91.8	65-130	0			
1,2,4-Trimethylbenzene	939	30	1000	0	93.9	65-135	0			
1,2-Dibromo-3-chloropropane	888.5	100	1000	0	88.8	40-135	0			
1,2-Dibromoethane	975.5	30	1000	0	97.6	80-195	0			
1,2-Dichlorobenzene	968.5	30	1000	0	96.8	75-120	0			
1,2-Dichloroethane	1030	100	1000	0	103	70-135	0			
1,2-Dichloropropane	1043	30	1000	0	104	70-120	0			
1,3,5-Trimethylbenzene	989.5	100	1000	0	99	65-135	0			
1,3-Dichlorobenzene	998	30	1000	0	99.8	70-125	0			
1,4-Dichlorobenzene	987.5	30	1000	0	98.8	70-125	0			
2-Butanone	948.5	200	1000	0	94.8	30-160	0			
2-Hexanone	1032	30	1000	0	103	45-145	0			
4-Methyl-2-pentanone	1370	30	1000	0	137	74-176	0			
Acetone	985.5	100	1000	0	98.6	20-160	0			
Acrylonitrile	996	100	1000	0	99.6	70-135	0			
Benzene	981.5	30	1000	0	98.2	75-125	0			
Bromochloromethane	980.5	30	1000	0	98	74-134	0			
Bromodichloromethane	1028	30	1000	0	103	70-130	0			
Bromoform	854	30	1000	0	85.4	55-135	0			
Bromomethane	1099	100	1000	0	110	50-170	0			
Carbon disulfide	1032	30	1000	0	103	45-160	0			
Carbon tetrachloride	944.5	30	1000	0	94.4	65-135	0			
Chlorobenzene	1004	30	1000	0	100	75-125	0			
Chloroethane	945.5	100	1000	0	94.6	40-155	0			
Chloroform	950	30	1000	0	95	66-140	0			
Chloromethane	1054	100	1000	0	105	50-144	0			
cis-1,2-Dichloroethene	941.5	30	1000	0	94.2	65-125	0			
cis-1,3-Dichloropropene	958	30	1000	0	95.8	70-125	0			
Dibromochloromethane	890.5	30	1000	0	89	65-135	0			
Dibromomethane	1020	30	1000	0	102	75-130	0			
Dichlorodifluoromethane	1272	100	1000	0	127	35-135	0			
Diethyl ether	1014	30	1000	0	101	67-150	0			
Ethylbenzene	1004	30	1000	0	100	75-125	0			
Hexachloroethane	944	100	1000	0	94.4	51-122	0			
Isopropylbenzene	982	30	1000	0	98.2	75-130	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **151956** Instrument ID **VMS11** Method: **SW8260C**

m,p-Xylene	2022	60	2000	0	101	80-125	0
Methyl iodide	1210	500	1000	0	121	64-180	0
Methyl tert-butyl ether	1202	30	1000	0	120	75-125	0
Methylene chloride	1034	250	1000	0	103	55-145	0
Naphthalene	910	100	1000	0	91	40-140	0
n-Propylbenzene	987	30	1000	0	98.7	65-135	0
o-Xylene	1012	30	1000	0	101	75-125	0
Styrene	952.5	30	1000	0	95.2	80-138	0
Tetrachloroethene	1032	30	1000	0	103	67-167	0
Toluene	995.5	30	1000	0	99.6	70-125	0
trans-1,2-Dichloroethene	978	30	1000	0	97.8	65-135	0
trans-1,3-Dichloropropene	909.5	30	1000	0	91	59-129	0
trans-1,4-Dichloro-2-butene	800	30	1000	0	80	62-112	0
Trichloroethene	1066	30	1000	0	107	75-125	0
Trichlorofluoromethane	801	30	1000	0	80.1	25-185	0
Vinyl chloride	951.5	30	1000	0	95.2	60-125	0
Xylenes, Total	3035	90	3000	0	101	75-125	0
Surr: 1,2-Dichloroethane-d4	*998*	0	*1000*	0	*99.8*	*70-130*	0
Surr: 4-Bromofluorobenzene	*977.5*	0	*1000*	0	*97.8*	*70-130*	0
Surr: Dibromofluoromethane	*1018*	0	*1000*	0	*102*	*70-130*	0
Surr: Toluene-d8	*979.5*	0	*1000*	0	*98*	*70-130*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151956** Instrument ID **VMS11** Method: **SW8260C**

MS Sample ID: **20020928-01A MS** Units: **µg/Kg-dry** Analysis Date: **2/19/2020 07:13 AM**

Client ID: Run ID: **VMS10_200218B** SeqNo: **6257644** Prep Date: **2/14/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1161	40	1328	0	87.4	75-125	0			
1,1,1-Trichloroethane	1305	40	1328	0	98.2	70-135	0			
1,1,2,2-Tetrachloroethane	1147	40	1328	0	86.4	55-130	0			
1,1,2-Trichloroethane	1214	40	1328	0	91.4	60-125	0			
1,1-Dichloroethane	1364	40	1328	0	103	75-125	0			
1,1-Dichloroethene	1357	40	1328	0	102	76-148	0			
1,2,3-Trichloropropane	1175	40	1328	0	88.5	65-130	0			
1,2,4-Trichlorobenzene	1029	130	1328	0	77.5	65-130	0			
1,2,4-Trimethylbenzene	1155	40	1328	50.11	83.2	65-135	0			
1,2-Dibromo-3-chloropropane	938.2	130	1328	0	70.6	40-135	0			
1,2-Dibromoethane	1334	40	1328	0	100	80-195	0			
1,2-Dichlorobenzene	1144	40	1328	0	86.2	75-120	0			
1,2-Dichloroethane	1282	130	1328	0	96.6	70-135	0			
1,2-Dichloropropane	1345	40	1328	0	101	70-120	0			
1,3,5-Trimethylbenzene	1202	130	1328	0	90.5	65-135	0			
1,3-Dichlorobenzene	1147	40	1328	0	86.4	70-125	0			
1,4-Dichlorobenzene	1102	40	1328	0	83	70-125	0			
2-Butanone	1050	270	1328	0	79	30-160	0			
2-Hexanone	930.2	40	1328	0	70	45-145	0			
4-Methyl-2-pentanone	1268	40	1328	0	95.5	74-176	0			
Acetone	1196	130	1328	117.4	81.2	20-160	0			
Acrylonitrile	1256	130	1328	0	94.6	70-135	0			
Benzene	1305	40	1328	0	98.3	75-125	0			
Bromochloromethane	1323	40	1328	0	99.6	74-134	0			
Bromodichloromethane	1352	40	1328	0	102	70-130	0			
Bromoform	920.2	40	1328	0	69.3	55-135	0			
Bromomethane	1530	130	1328	61.98	111	50-170	0			
Carbon disulfide	1307	40	1328	0	98.4	45-160	0			
Carbon tetrachloride	933.5	40	1328	0	70.3	65-135	0			
Chlorobenzene	1208	40	1328	0	91	75-125	0			
Chloroethane	1221	130	1328	0	92	40-155	0			
Chloroform	1348	40	1328	0	102	66-140	0			
Chloromethane	1298	130	1328	110.1	89.5	50-144	0			
cis-1,2-Dichloroethene	1290	40	1328	0	97.2	65-125	0			
cis-1,3-Dichloropropene	1222	40	1328	0	92	70-125	0			
Dibromochloromethane	993.3	40	1328	0	74.8	65-135	0			
Dibromomethane	1303	40	1328	0	98.2	75-130	0			
Dichlorodifluoromethane	1621	130	1328	0	122	35-135	0			
Diethyl ether	1289	40	1328	0	97	67-150	0			
Ethylbenzene	1186	40	1328	27.69	87.3	75-125	0			
Hexachloroethane	1005	130	1328	0	75.6	51-122	0			
Isopropylbenzene	1165	40	1328	0	87.8	75-130	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **151956** Instrument ID **VMS11** Method: **SW8260C**

m,p-Xylene	2341	80	2656	61.98	85.8	80-125	0
Methyl iodide	2261	660	1328	104.8	162	64-180	0
Methyl tert-butyl ether	1410	40	1328	0	106	75-125	0
Methylene chloride	1250	330	1328	21.76	92.5	55-145	0
Naphthalene	1007	130	1328	79.78	69.8	40-140	0
n-Propylbenzene	1159	40	1328	0	87.3	65-135	0
o-Xylene	1218	40	1328	44.17	88.4	75-125	0
Styrene	1367	40	1328	0	103	80-138	0
Tetrachloroethene	1472	40	1328	0	111	67-167	0
Toluene	1173	40	1328	85.71	81.8	70-125	0
trans-1,2-Dichloroethene	1343	40	1328	0	101	65-135	0
trans-1,3-Dichloropropene	1127	40	1328	0	84.9	59-129	0
trans-1,4-Dichloro-2-butene	873.8	40	1328	0	65.8	62-112	0
Trichloroethene	1283	40	1328	27.03	94.6	75-125	0
Trichlorofluoromethane	1089	40	1328	0	82	25-185	0
Vinyl chloride	1372	40	1328	0	103	60-125	0
Xylenes, Total	3559	120	3984	106	86.7	75-125	0
Surr: 1,2-Dichloroethane-d4	*1298*	0	*1328*	0	*97.8*	*70-130*	0
Surr: 4-Bromofluorobenzene	*1358*	0	*1328*	0	*102*	*70-130*	0
Surr: Dibromofluoromethane	*1369*	0	*1328*	0	*103*	*70-130*	0
Surr: Toluene-d8	*1270*	0	*1328*	0	*95.6*	*70-130*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151956** Instrument ID **VMS11** Method: **SW8260C**

MSD Sample ID: **20020928-01A MSD** Units: **µg/Kg-dry** Analysis Date: **2/19/2020 07:33 AM**

Client ID: Run ID: **VMS10_200218B** SeqNo: **6257646** Prep Date: **2/14/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1233	40	1342	0	91.8	75-125	1161	5.97	30	
1,1,1-Trichloroethane	1436	40	1342	0	107	70-135	1305	9.59	30	
1,1,2,2-Tetrachloroethane	1188	40	1342	0	88.5	55-130	1147	3.46	30	
1,1,2-Trichloroethane	1347	40	1342	0	100	60-125	1214	10.4	30	
1,1-Dichloroethane	1480	40	1342	0	110	75-125	1364	8.2	30	
1,1-Dichloroethene	1507	40	1342	0	112	76-148	1357	10.5	30	
1,2,3-Trichloropropane	1305	40	1342	0	97.2	65-130	1175	10.4	30	
1,2,4-Trichlorobenzene	1243	130	1342	0	92.6	65-130	1029	18.8	30	
1,2,4-Trimethylbenzene	1295	40	1342	50.11	92.8	65-135	1155	11.5	30	
1,2-Dibromo-3-chloropropane	964.3	130	1342	0	71.8	40-135	938.2	2.75	30	
1,2-Dibromoethane	1414	40	1342	0	105	80-195	1334	5.82	30	
1,2-Dichlorobenzene	1290	40	1342	0	96.1	75-120	1144	12	30	
1,2-Dichloroethane	1370	130	1342	0	102	70-135	1282	6.65	30	
1,2-Dichloropropane	1466	40	1342	0	109	70-120	1345	8.57	30	
1,3,5-Trimethylbenzene	1345	130	1342	0	100	65-135	1202	11.3	30	
1,3-Dichlorobenzene	1261	40	1342	0	94	70-125	1147	9.49	30	
1,4-Dichlorobenzene	1240	40	1342	0	92.4	70-125	1102	11.8	30	
2-Butanone	1328	270	1342	0	99	30-160	1050	23.4	30	
2-Hexanone	1158	40	1342	0	86.3	45-145	930.2	21.8	30	
4-Methyl-2-pentanone	1317	40	1342	0	98.1	74-176	1268	3.75	30	
Acetone	1833	130	1342	117.4	128	20-160	1196	42.1	30	R
Acrylonitrile	1381	130	1342	0	103	70-135	1256	9.47	30	
Benzene	1409	40	1342	0	105	75-125	1305	7.65	30	
Bromochloromethane	1428	40	1342	0	106	74-134	1323	7.61	30	
Bromodichloromethane	1448	40	1342	0	108	70-130	1352	6.88	30	
Bromoform	1001	40	1342	0	74.6	55-135	920.2	8.43	30	
Bromomethane	1793	130	1342	61.98	129	50-170	1530	15.8	30	
Carbon disulfide	1463	40	1342	0	109	45-160	1307	11.3	30	
Carbon tetrachloride	1053	40	1342	0	78.4	65-135	933.5	12	30	
Chlorobenzene	1281	40	1342	0	95.4	75-125	1208	5.83	30	
Chloroethane	1266	130	1342	0	94.3	40-155	1221	3.59	30	
Chloroform	1436	40	1342	0	107	66-140	1348	6.29	30	
Chloromethane	1398	130	1342	110.1	95.9	50-144	1298	7.4	30	
cis-1,2-Dichloroethene	1394	40	1342	0	104	65-125	1290	7.73	30	
cis-1,3-Dichloropropene	1321	40	1342	0	98.4	70-125	1222	7.78	30	
Dibromochloromethane	1049	40	1342	0	78.2	65-135	993.3	5.44	30	
Dibromomethane	1399	40	1342	0	104	75-130	1303	7.09	30	
Dichlorodifluoromethane	1917	130	1342	0	143	35-135	1621	16.7	30	S
Diethyl ether	1366	40	1342	0	102	67-150	1289	5.84	30	
Ethylbenzene	1313	40	1342	27.69	95.8	75-125	1186	10.1	30	
Hexachloroethane	1107	130	1342	0	82.4	51-122	1005	9.66	30	
Isopropylbenzene	1329	40	1342	0	99	75-130	1165	13.2	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **151956** Instrument ID **VMS11** Method: **SW8260C**

m,p-Xylene	2560	81	2684	61.98	93.1	80-125	2341	8.93	30	
Methyl iodide	2790	670	1342	104.8	200	64-180	2261	21	30	S
Methyl tert-butyl ether	1507	40	1342	0	112	75-125	1410	6.64	30	
Methylene chloride	1353	340	1342	21.76	99.2	55-145	1250	7.93	30	
Naphthalene	1123	130	1342	79.78	77.7	40-140	1007	10.8	30	
n-Propylbenzene	1309	40	1342	0	97.6	65-135	1159	12.1	30	
o-Xylene	1325	40	1342	44.17	95.4	75-125	1218	8.36	30	
Styrene	1467	40	1342	0	109	80-138	1367	7.04	30	
Tetrachloroethene	2159	40	1342	0	161	67-167	1472	37.9	30	R
Toluene	1258	40	1342	85.71	87.3	70-125	1173	7	30	
trans-1,2-Dichloroethene	1494	40	1342	0	111	65-135	1343	10.7	30	
trans-1,3-Dichloropropene	1192	40	1342	0	88.8	59-129	1127	5.61	30	
trans-1,4-Dichloro-2-butene	926	40	1342	0	69	62-112	873.8	5.81	30	
Trichloroethene	1523	40	1342	27.03	111	75-125	1283	17	30	
Trichlorofluoromethane	1257	40	1342	0	93.6	25-185	1089	14.3	30	
Vinyl chloride	1545	40	1342	0	115	60-125	1372	11.9	30	
Xylenes, Total	3885	120	4026	106	93.9	75-125	3559	8.74	30	
Surr: 1,2-Dichloroethane-d4	*1319*	0	*1342*	0	*98.2*	*70-130*	1298	*1.57*	*30*	
Surr: 4-Bromofluorobenzene	*1362*	0	*1342*	0	*102*	*70-130*	1358	*0.277*	*30*	
Surr: Dibromofluoromethane	*1394*	0	*1342*	0	*104*	*70-130*	1369	*1.84*	*30*	
Surr: Toluene-d8	*1274*	0	*1342*	0	*95*	*70-130*	1270	*0.328*	*30*	

The following samples were analyzed in this batch: 20020850-24A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R282673B** Instrument ID **VMS6** Method: **SW8260C**

MBLK Sample ID: **VBLKW2-200214-R282673B** Units: **µg/L** Analysis Date: **2/15/2020 03:03 AM**

Client ID: Run ID: **VMS6_200214B** SeqNo: **6252264** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	1.0								
1,2-Dichloroethane	ND	1.0								
2-Butanone	ND	5.0								
Benzene	ND	1.0								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroform	ND	1.0								
Tetrachloroethene	ND	1.0								
Trichloroethene	ND	1.0								
Vinyl chloride	ND	1.0								
Surr: 1,2-Dichloroethane-d4	*18.64*	0	*20*	0	*93.2*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*20.07*	0	*20*	0	*100*	*80-110*	0			
Surr: Dibromofluoromethane	*18.84*	0	*20*	0	*94.2*	*85-115*	0			
Surr: Toluene-d8	*18.89*	0	*20*	0	*94.4*	*85-110*	0			

LCS Sample ID: **VLCSW2-200214-R282673B** Units: **µg/L** Analysis Date: **2/15/2020 01:50 AM**

Client ID: Run ID: **VMS6_200214B** SeqNo: **6252263** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	18.96	1.0	20	0	94.8	70-145	0			
1,2-Dichloroethane	20.36	1.0	20	0	102	78-125	0			
2-Butanone	14.13	5.0	20	0	70.6	55-150	0			
Benzene	19.77	1.0	20	0	98.8	70-130	0			
Carbon tetrachloride	18.73	1.0	20	0	93.6	65-140	0			
Chlorobenzene	19.16	1.0	20	0	95.8	80-120	0			
Chloroform	17.98	1.0	20	0	89.9	66-135	0			
Tetrachloroethene	21.05	1.0	20	0	105	68-166	0			
Trichloroethene	20.82	1.0	20	0	104	77-125	0			
Vinyl chloride	18.2	1.0	20	0	91	50-136	0			
Surr: 1,2-Dichloroethane-d4	*19.31*	0	*20*	0	*96.6*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*20.84*	0	*20*	0	*104*	*80-110*	0			
Surr: Dibromofluoromethane	*19.54*	0	*20*	0	*97.7*	*85-115*	0			
Surr: Toluene-d8	*19.62*	0	*20*	0	*98.1*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R282673B** Instrument ID **VMS6** Method: **SW8260C**

MS Sample ID: **20020647-02B MS** Units: **µg/L** Analysis Date: **2/15/2020 11:55 AM**

Client ID: Run ID: **VMS6_200214B** SeqNo: **6252274** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	109.2	5.0	100	0	109	70-145	0			
1,2-Dichloroethane	111.5	5.0	100	0	112	78-125	0			
2-Butanone	82.5	25	100	8.9	73.6	55-150	0			
Benzene	110.4	5.0	100	0	110	70-130	0			
Carbon tetrachloride	105	5.0	100	0	105	65-140	0			
Chlorobenzene	101.3	5.0	100	0	101	80-120	0			
Chloroform	97.5	5.0	100	0	97.5	66-135	0			
Tetrachloroethene	112.9	5.0	100	0	113	68-166	0			
Trichloroethene	113.6	5.0	100	0	114	77-125	0			
Vinyl chloride	104	5.0	100	0	104	50-136	0			
Surr: 1,2-Dichloroethane-d4	*94.35*	0	*100*	0	*94.4*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*100.9*	0	*100*	0	*101*	*80-110*	0			
Surr: Dibromofluoromethane	*95.8*	0	*100*	0	*95.8*	*85-115*	0			
Surr: Toluene-d8	*94.55*	0	*100*	0	*94.6*	*85-110*	0			

MSD Sample ID: **20020647-02B MSD** Units: **µg/L** Analysis Date: **2/15/2020 12:19 PM**

Client ID: Run ID: **VMS6_200214B** SeqNo: **6252275** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	109	5.0	100	0	109	70-145	0	0	30	
1,2-Dichloroethane	111.4	5.0	100	0	111	78-125	0	0	30	
2-Butanone	80.7	25	100	8.9	71.8	55-150	0	0	30	
Benzene	107.4	5.0	100	0	107	70-130	0	0	30	
Carbon tetrachloride	103.6	5.0	100	0	104	65-140	0	0	30	
Chlorobenzene	99.05	5.0	100	0	99	80-120	0	0	30	
Chloroform	98.3	5.0	100	0	98.3	66-135	0	0	30	
Tetrachloroethene	111.2	5.0	100	0	111	68-166	0	0	30	
Trichloroethene	113.1	5.0	100	0	113	77-125	0	0	30	
Vinyl chloride	106.4	5.0	100	0	106	50-136	0	0	30	
Surr: 1,2-Dichloroethane-d4	*90.45*	0	*100*	0	*90.4*	*75-120*	0	*0*	*30*	
Surr: 4-Bromofluorobenzene	*101.2*	0	*100*	0	*101*	*80-110*	0	*0*	*30*	
Surr: Dibromofluoromethane	*95.55*	0	*100*	0	*95.6*	*85-115*	0	*0*	*30*	
Surr: Toluene-d8	*93.85*	0	*100*	0	*93.8*	*85-110*	0	*0*	*30*	

The following samples were analyzed in this batch: 20020850-39A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R282674a** Instrument ID **VMS8** Method: **SW8260C**

MBLK Sample ID: **VBLKW2-200214-R282674a** Units: **µg/L** Analysis Date: **2/14/2020 06:09 PM**

Client ID: Run ID: **VMS8_200214A** SeqNo: **6252246** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	1.0								
1,2-Dichloroethane	ND	1.0								
2-Butanone	ND	5.0								
Benzene	ND	1.0								
Carbon tetrachloride	0.6	1.0								J
Chlorobenzene	ND	1.0								
Chloroform	ND	1.0								
Tetrachloroethene	ND	1.0								
Trichloroethene	ND	1.0								
Vinyl chloride	ND	1.0								
Surr: 1,2-Dichloroethane-d4	*20.13*	0	*20*	0	*101*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*20.32*	0	*20*	0	*102*	*80-110*	0			
Surr: Dibromofluoromethane	*19.77*	0	*20*	0	*98.8*	*85-115*	0			
Surr: Toluene-d8	*20.22*	0	*20*	0	*101*	*85-110*	0			

LCS Sample ID: **VLCSW2-200214-R282674a** Units: **µg/L** Analysis Date: **2/14/2020 05:20 PM**

Client ID: Run ID: **VMS8_200214A** SeqNo: **6252245** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	19.88	1.0	20	0	99.4	70-145	0			
1,2-Dichloroethane	17.78	1.0	20	0	88.9	78-125	0			
2-Butanone	22.01	5.0	20	0	110	55-150	0			
Benzene	20.1	1.0	20	0	100	70-130	0			
Carbon tetrachloride	18.02	1.0	20	0	90.1	65-140	0			
Chlorobenzene	20.03	1.0	20	0	100	80-120	0			
Chloroform	18.12	1.0	20	0	90.6	66-135	0			
Tetrachloroethene	18.33	1.0	20	0	91.6	68-166	0			
Trichloroethene	18.87	1.0	20	0	94.4	77-125	0			
Vinyl chloride	21.05	1.0	20	0	105	50-136	0			
Surr: 1,2-Dichloroethane-d4	*20.15*	0	*20*	0	*101*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*20.24*	0	*20*	0	*101*	*80-110*	0			
Surr: Dibromofluoromethane	*19.88*	0	*20*	0	*99.4*	*85-115*	0			
Surr: Toluene-d8	*19.8*	0	*20*	0	*99*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R282674a** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: **20020566-02A MS** Units: **µg/L** Analysis Date: **2/14/2020 11:50 PM**

Client ID: Run ID: **VMS8_200214A** SeqNo: **6252254** Prep Date: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	409	20	400	0	102	70-145	0			
1,2-Dichloroethane	347.2	20	400	0	86.8	78-125	0			
2-Butanone	497	100	400	3.4	123	55-150	0			
Benzene	459	20	400	39	105	70-130	0			
Carbon tetrachloride	350.4	20	400	0	87.6	65-140	0			
Chlorobenzene	355.8	20	400	0	89	80-120	0			
Chloroform	379.2	20	400	0	94.8	66-135	0			
Tetrachloroethene	326.6	20	400	0	81.6	68-166	0			
Trichloroethene	348.6	20	400	0	87.2	77-125	0			
Vinyl chloride	462.2	20	400	0	116	50-136	0			
Surr: 1,2-Dichloroethane-d4	*387.6*	0	*400*	0	*96.9*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*403.6*	0	*400*	0	*101*	*80-110*	0			
Surr: Dibromofluoromethane	*426.4*	0	*400*	0	*107*	*85-115*	0			
Surr: Toluene-d8	*386.6*	0	*400*	0	*96.6*	*85-110*	0			

MSD Sample ID: **20020566-02A MSD** Units: **µg/L** Analysis Date: **2/15/2020 12:06 PM**

Client ID: Run ID: **VMS8_200214A** SeqNo: **6252255** Prep Date: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	442	20	400	0	110	70-145	409	7.76	30	
1,2-Dichloroethane	359.8	20	400	0	90	78-125	347.2	3.56	30	
2-Butanone	474.2	100	400	3.4	118	55-150	497	4.7	30	
Benzene	480.8	20	400	39	110	70-130	459	4.64	30	
Carbon tetrachloride	358.2	20	400	0	89.6	65-140	350.4	2.2	30	
Chlorobenzene	369.6	20	400	0	92.4	80-120	355.8	3.8	30	
Chloroform	394	20	400	0	98.5	66-135	379.2	3.83	30	
Tetrachloroethene	336.6	20	400	0	84.2	68-166	326.6	3.02	30	
Trichloroethene	351.8	20	400	0	88	77-125	348.6	0.914	30	
Vinyl chloride	499.6	20	400	0	125	50-136	462.2	7.78	30	
Surr: 1,2-Dichloroethane-d4	*393*	0	*400*	0	*98.2*	*75-120*	387.6	*1.38*	*30*	
Surr: 4-Bromofluorobenzene	*396*	0	*400*	0	*99*	*80-110*	403.6	*1.9*	*30*	
Surr: Dibromofluoromethane	*404.6*	0	*400*	0	*101*	*85-115*	426.4	*5.25*	*30*	
Surr: Toluene-d8	*386.8*	0	*400*	0	*96.7*	*85-110*	386.6	*0.0517*	*30*	

The following samples were analyzed in this batch:

20020850-29A	20020850-30A	20020850-31A
20020850-32A	20020850-33A	20020850-34A
20020850-35A	20020850-36A	20020850-37A
20020850-38A	20020850-40A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R282716A** Instrument ID **VMS10** Method: **SW8260C**

MBLK Sample ID: **VBLKW3-200214-R282716A** Units: **µg/L** Analysis Date: **2/15/2020 10:42 AM**

Client ID: Run ID: **VMS10_200214C** SeqNo: **6252416** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	1.0								
1,2-Dichloroethane	ND	1.0								
2-Butanone	ND	5.0								
Benzene	ND	1.0								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroform	ND	1.0								
Tetrachloroethene	ND	1.0								
Trichloroethene	ND	1.0								
Vinyl chloride	ND	1.0								
Surr: 1,2-Dichloroethane-d4	*20.42*	0	*20*	0	*102*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.27*	0	*20*	0	*96.4*	*80-110*	0			
Surr: Dibromofluoromethane	*20.55*	0	*20*	0	*103*	*85-115*	0			
Surr: Toluene-d8	*19.51*	0	*20*	0	*97.6*	*85-110*	0			

LCS Sample ID: **VLCSW3-200214-R282716A** Units: **µg/L** Analysis Date: **2/15/2020 09:40 AM**

Client ID: Run ID: **VMS10_200214C** SeqNo: **6252415** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	20.53	1.0	20	0	103	70-145	0			
1,2-Dichloroethane	19.65	1.0	20	0	98.2	78-125	0			
2-Butanone	15.94	5.0	20	0	79.7	55-150	0			
Benzene	20.24	1.0	20	0	101	70-130	0			
Carbon tetrachloride	16.29	1.0	20	0	81.4	65-140	0			
Chlorobenzene	19.84	1.0	20	0	99.2	80-120	0			
Chloroform	20.25	1.0	20	0	101	66-135	0			
Tetrachloroethene	19.97	1.0	20	0	99.8	68-166	0			
Trichloroethene	20.38	1.0	20	0	102	77-125	0			
Vinyl chloride	20.62	1.0	20	0	103	50-136	0			
Surr: 1,2-Dichloroethane-d4	*19.92*	0	*20*	0	*99.6*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*20.02*	0	*20*	0	*100*	*80-110*	0			
Surr: Dibromofluoromethane	*20.96*	0	*20*	0	*105*	*85-115*	0			
Surr: Toluene-d8	*20.02*	0	*20*	0	*100*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R282716A** Instrument ID **VMS10** Method: **SW8260C**

MS Sample ID: **20020850-44A MS** Units: **µg/L** Analysis Date: **2/15/2020 06:11 PM**

Client ID: **S-11 5-10' TCLP** Run ID: **VMS10_200214C** SeqNo: **6252418** Prep Date: **2/14/2020** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	422.2	20	400	0	106	70-145	0			
1,2-Dichloroethane	377	20	400	0	94.2	78-125	0			
2-Butanone	313.8	100	400	0	78.4	55-150	0			
Benzene	384.8	20	400	0	96.2	70-130	0			
Carbon tetrachloride	314.6	20	400	0	78.6	65-140	0			
Chlorobenzene	365.4	20	400	0	91.4	80-120	0			
Chloroform	398.2	20	400	0	99.6	66-135	0			
Tetrachloroethene	377.4	20	400	0	94.4	68-166	0			
Trichloroethene	391.8	20	400	0	98	77-125	0			
Vinyl chloride	430.4	20	400	0	108	50-136	0			
Surr: 1,2-Dichloroethane-d4	*405.2*	0	*400*	0	*101*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*403*	0	*400*	0	*101*	*80-110*	0			
Surr: Dibromofluoromethane	*421.8*	0	*400*	0	*105*	*85-115*	0			
Surr: Toluene-d8	*399.4*	0	*400*	0	*99.8*	*85-110*	0			

MSD Sample ID: **20020850-44A MSD** Units: **µg/L** Analysis Date: **2/15/2020 06:31 PM**

Client ID: **S-11 5-10' TCLP** Run ID: **VMS10_200214C** SeqNo: **6252419** Prep Date: **2/14/2020** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	404.4	20	400	0	101	70-145	422.2	4.31	30	
1,2-Dichloroethane	378.4	20	400	0	94.6	78-125	377	0.371	30	
2-Butanone	299.6	100	400	0	74.9	55-150	313.8	4.63	30	
Benzene	387.8	20	400	0	97	70-130	384.8	0.777	30	
Carbon tetrachloride	310.8	20	400	0	77.7	65-140	314.6	1.22	30	
Chlorobenzene	354.6	20	400	0	88.6	80-120	365.4	3	30	
Chloroform	389.2	20	400	0	97.3	66-135	398.2	2.29	30	
Tetrachloroethene	353.4	20	400	0	88.4	68-166	377.4	6.57	30	
Trichloroethene	376	20	400	0	94	77-125	391.8	4.12	30	
Vinyl chloride	409.6	20	400	0	102	50-136	430.4	4.95	30	
Surr: 1,2-Dichloroethane-d4	*409.2*	0	*400*	0	*102*	*75-120*	405.2	*0.982*	*30*	
Surr: 4-Bromofluorobenzene	*393.6*	0	*400*	0	*98.4*	*80-110*	403	*2.36*	*30*	
Surr: Dibromofluoromethane	*414*	0	*400*	0	*104*	*85-115*	421.8	*1.87*	*30*	
Surr: Toluene-d8	*384.4*	0	*400*	0	*96.1*	*85-110*	399.4	*3.83*	*30*	

The following samples were analyzed in this batch:

20020850-41A	20020850-42A	20020850-43A
20020850-44A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R282900** Instrument ID **VMS10** Method: **SW8260C**

MBLK Sample ID: **VBLKW1-200219-R282900** Units: **µg/L** Analysis Date: **2/19/2020 11:00 AM**

Client ID: Run ID: **VMS10_200219A** SeqNo: **6260628** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
1,1,2-Trichlorotrifluoroethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2,3-Trichloropropane	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	1.0								
1,2-Dibromoethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,2-Dichloroethane	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
2-Butanone	ND	5.0								
2-Hexanone	ND	5.0								
2-Methylnaphthalene	ND	5.0								
4-Methyl-2-pentanone	ND	1.0								
Acetone	ND	10								
Acrylonitrile	ND	1.0								
Benzene	ND	1.0								
Bromochloromethane	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	1.26	1.0								
Carbon disulfide	ND	1.0								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	1.0								
Chloroform	ND	1.0								
Chloromethane	3.05	1.0								
cis-1,2-Dichloroethene	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
Diethyl ether	ND	1.0								
Ethylbenzene	ND	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R282900** Instrument ID **VMS10** Method: **SW8260C**

Hexachloroethane	ND	1.0					
Isopropylbenzene	ND	1.0					
m,p-Xylene	ND	2.0					
Methyl iodide	ND	5.0					
Methyl tert-butyl ether	ND	1.0					
Methylene chloride	ND	5.0					
Naphthalene	ND	5.0					
n-Propylbenzene	ND	1.0					
o-Xylene	ND	1.0					
Styrene	ND	1.0					
Tetrachloroethene	ND	1.0					
Toluene	ND	1.0					
trans-1,2-Dichloroethene	ND	1.0					
trans-1,3-Dichloropropene	ND	1.0					
trans-1,4-Dichloro-2-butene	ND	2.0					
Trichloroethene	ND	1.0					
Trichlorofluoromethane	ND	1.0					
Vinyl acetate	ND	5.0					
Vinyl chloride	ND	1.0					
Xylenes, Total	ND	3.0					
Surr: 1,2-Dichloroethane-d4	*19.37*	0	*20*	0	*96.8*	*75-120*	0
Surr: 4-Bromofluorobenzene	*20.24*	0	*20*	0	*101*	*80-110*	0
Surr: Dibromofluoromethane	*19.67*	0	*20*	0	*98.4*	*85-115*	0
Surr: Toluene-d8	*18.98*	0	*20*	0	*94.9*	*85-110*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R282900** Instrument ID **VMS10** Method: **SW8260C**

LCS Sample ID: **VLCSW1-200219-R282900** Units: **µg/L** Analysis Date: **2/19/2020 09:59 AM**

Client ID: Run ID: **VMS10_200219A** SeqNo: **6260627** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	17.63	1.0	20	0	88.2	73-114	0			
1,1,1-Trichloroethane	19.7	1.0	20	0	98.5	75-130	0			
1,1,2,2-Tetrachloroethane	18.03	1.0	20	0	90.2	75-130	0			
1,1,2-Trichloroethane	18.83	1.0	20	0	94.2	75-125	0			
1,1-Dichloroethane	21.94	1.0	20	0	110	68-142	0			
1,1-Dichloroethene	21.65	1.0	20	0	108	70-145	0			
1,2,3-Trichloropropane	17.1	1.0	20	0	85.5	75-125	0			
1,2,4-Trichlorobenzene	17.46	1.0	20	0	87.3	70-135	0			
1,2,4-Trimethylbenzene	18.31	1.0	20	0	91.6	75-130	0			
1,2-Dibromo-3-chloropropane	14.81	1.0	20	0	74	60-130	0			
1,2-Dibromoethane	20.28	1.0	20	0	101	67-155	0			
1,2-Dichlorobenzene	18.04	1.0	20	0	90.2	70-130	0			
1,2-Dichloroethane	19.63	1.0	20	0	98.2	78-125	0			
1,2-Dichloropropane	20.65	1.0	20	0	103	75-125	0			
1,3,5-Trimethylbenzene	18.79	1.0	20	0	94	75-130	0			
1,3-Dichlorobenzene	18.86	1.0	20	0	94.3	75-130	0			
1,4-Dichlorobenzene	18.46	1.0	20	0	92.3	75-130	0			
2-Butanone	17.68	5.0	20	0	88.4	55-150	0			
2-Hexanone	15.69	5.0	20	0	78.4	60-135	0			
4-Methyl-2-pentanone	21.08	1.0	20	0	105	77-178	0			
Acetone	19.54	10	20	0	97.7	60-160	0			
Acrylonitrile	21.98	1.0	20	0	110	60-140	0			
Benzene	20.22	1.0	20	0	101	70-130	0			
Bromochloromethane	21.53	1.0	20	0	108	72-141	0			
Bromodichloromethane	21.23	1.0	20	0	106	75-125	0			
Bromoform	14.58	1.0	20	0	72.9	60-125	0			
Bromomethane	27.6	1.0	20	0	138	30-185	0			B
Carbon disulfide	24.4	1.0	20	0	122	60-165	0			
Carbon tetrachloride	14.74	1.0	20	0	73.7	65-140	0			
Chlorobenzene	19.09	1.0	20	0	95.4	80-120	0			
Chloroethane	20.37	1.0	20	0	102	31-172	0			
Chloroform	21.63	1.0	20	0	108	66-135	0			
Chloromethane	21.57	1.0	20	0	108	46-148	0			B
cis-1,2-Dichloroethene	21.52	1.0	20	0	108	75-134	0			
cis-1,3-Dichloropropene	20.75	1.0	20	0	104	70-130	0			
Dibromochloromethane	15.52	1.0	20	0	77.6	60-115	0			
Dibromomethane	19.84	1.0	20	0	99.2	79-126	0			
Dichlorodifluoromethane	25.55	1.0	20	0	128	20-120	0			S
Diethyl ether	22.52	1.0	20	0	113	70-130	0			
Ethylbenzene	18.63	1.0	20	0	93.2	76-123	0			
Hexachloroethane	18.33	1.0	20	0	91.6	50-124	0			
Isopropylbenzene	18.52	1.0	20	0	92.6	80-127	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R282900** Instrument ID **VMS10** Method: **SW8260C**

m,p-Xylene	37.13	2.0	40	0	92.8	75-130	0	
Methyl iodide	35.93	5.0	20	0	180	60-160	0	S
Methyl tert-butyl ether	25.26	1.0	20	0	126	68-129	0	
Methylene chloride	21.31	5.0	20	0	107	72-125	0	
Naphthalene	15.45	5.0	20	0	77.2	55-160	0	
n-Propylbenzene	18.26	1.0	20	0	91.3	76-116	0	
o-Xylene	18.91	1.0	20	0	94.6	76-127	0	
Styrene	21.19	1.0	20	0	106	83-137	0	
Tetrachloroethene	18.21	1.0	20	0	91	68-166	0	
Toluene	18.31	1.0	20	0	91.6	76-125	0	
trans-1,2-Dichloroethene	21.95	1.0	20	0	110	80-140	0	
trans-1,3-Dichloropropene	19.14	1.0	20	0	95.7	56-132	0	
trans-1,4-Dichloro-2-butene	16.97	2.0	20	0	84.8	46-118	0	
Trichloroethene	20.23	1.0	20	0	101	77-125	0	
Trichlorofluoromethane	16.88	1.0	20	0	84.4	60-140	0	
Vinyl chloride	20.49	1.0	20	0	102	50-136	0	
Xylenes, Total	56.04	3.0	60	0	93.4	76-127	0	
Surr: 1,2-Dichloroethane-d4	*19.28*	0	*20*	0	*96.4*	*75-120*	0	
Surr: 4-Bromofluorobenzene	*19.8*	0	*20*	0	*99*	*80-110*	0	
Surr: Dibromofluoromethane	*20.38*	0	*20*	0	*102*	*85-115*	0	
Surr: Toluene-d8	*18.93*	0	*20*	0	*94.6*	*85-110*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R282900** Instrument ID **VMS10** Method: **SW8260C**

MS Sample ID: **20021121-01A MS** Units: **µg/L** Analysis Date: **2/19/2020 06:51 PM**

Client ID: Run ID: **VMS10_200219A** SeqNo: **6260651** Prep Date: **2/19/2020** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	341.2	20	400	0	85.3	73-114	0			
1,1,1-Trichloroethane	384.6	20	400	0	96.2	75-130	0			
1,1,2,2-Tetrachloroethane	370.8	20	400	0	92.7	75-130	0			
1,1,2-Trichloroethane	363.4	20	400	0	90.8	75-125	0			
1,1-Dichloroethane	405.4	20	400	0	101	68-142	0			
1,1-Dichloroethene	413	20	400	0	103	70-145	0			
1,2,3-Trichloropropane	365.2	20	400	0	91.3	75-125	0			
1,2,4-Trichlorobenzene	316.6	20	400	0	79.2	70-135	0			
1,2,4-Trimethylbenzene	479.6	20	400	115.6	91	75-130	0			
1,2-Dibromo-3-chloropropane	311.8	20	400	0	78	60-130	0			
1,2-Dibromoethane	391.6	20	400	0	97.9	67-155	0			
1,2-Dichlorobenzene	345.6	20	400	0	86.4	70-130	0			
1,2-Dichloroethane	379.8	20	400	0	95	78-125	0			
1,2-Dichloropropane	389	20	400	0	97.2	75-125	0			
1,3,5-Trimethylbenzene	390.2	20	400	34.8	88.8	75-130	0			
1,3-Dichlorobenzene	341.6	20	400	0	85.4	75-130	0			
1,4-Dichlorobenzene	334.8	20	400	0	83.7	75-130	0			
2-Butanone	332.2	100	400	0	83	55-150	0			
2-Hexanone	296	100	400	0	74	60-135	0			
4-Methyl-2-pentanone	404.8	20	400	0	101	77-178	0			
Acetone	362.8	200	400	23	85	60-160	0			
Acrylonitrile	396.6	20	400	0	99.2	60-140	0			
Benzene	376.6	20	400	0	94.2	70-130	0			
Bromochloromethane	402.6	20	400	0	101	72-141	0			
Bromodichloromethane	402.8	20	400	0	101	75-125	0			
Bromoform	299	20	400	0	74.8	60-125	0			
Bromomethane	946.8	20	400	0	237	30-185	0			BS
Carbon disulfide	401	20	400	0	100	60-165	0			
Carbon tetrachloride	293.4	20	400	0	73.4	65-140	0			
Chlorobenzene	353.8	20	400	0	88.4	80-120	0			
Chloroethane	358.2	20	400	0	89.6	31-172	0			
Chloroform	395.6	20	400	0	98.9	66-135	0			
Chloromethane	340	20	400	0	85	46-148	0			B
cis-1,2-Dichloroethene	396.4	20	400	0	99.1	75-134	0			
cis-1,3-Dichloropropene	373.2	20	400	0	93.3	70-130	0			
Dibromochloromethane	310	20	400	0	77.5	60-115	0			
Dibromomethane	391	20	400	0	97.8	79-126	0			
Dichlorodifluoromethane	494	20	400	0	124	20-120	0			S
Diethyl ether	382.4	20	400	0	95.6	70-130	0			
Ethylbenzene	361.6	20	400	13.6	87	76-123	0			
Hexachloroethane	327.4	20	400	0	81.8	50-124	0			
Isopropylbenzene	354	20	400	0	88.5	80-127	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R282900** Instrument ID **VMS10** Method: **SW8260C**

m,p-Xylene	737.2	40	800	41.4	87	75-130	0
Methyl iodide	476.6	100	400	0	119	60-160	0
Methyl tert-butyl ether	420.2	20	400	0	105	68-129	0
Methylene chloride	373.6	100	400	0	93.4	72-125	0
Naphthalene	353	100	400	36	79.2	55-160	0
n-Propylbenzene	348.4	20	400	9.2	84.8	76-116	0
o-Xylene	379.6	20	400	28	87.9	76-127	0
Styrene	396.4	20	400	0	99.1	83-137	0
Tetrachloroethene	343.4	20	400	0	85.8	68-166	0
Toluene	343.2	20	400	0	85.8	76-125	0
trans-1,2-Dichloroethene	399.8	20	400	0	100	80-140	0
trans-1,3-Dichloropropene	357.6	20	400	0	89.4	56-132	0
trans-1,4-Dichloro-2-butene	283.8	40	400	0	71	46-118	0
Trichloroethene	379	20	400	0	94.8	77-125	0
Trichlorofluoromethane	343	20	400	0	85.8	60-140	0
Vinyl chloride	407.2	20	400	0	102	50-136	0
Xylenes, Total	1117	60	1200	69.4	87.3	76-127	0
Surr: 1,2-Dichloroethane-d4	*387.8*	0	*400*	0	*97*	*75-120*	0
Surr: 4-Bromofluorobenzene	*411*	0	*400*	0	*103*	*80-110*	0
Surr: Dibromofluoromethane	*407.6*	0	*400*	0	*102*	*85-115*	0
Surr: Toluene-d8	*383.2*	0	*400*	0	*95.8*	*85-110*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R282900** Instrument ID **VMS10** Method: **SW8260C**

MSD Sample ID: **20021121-01A MSD** Units: **µg/L** Analysis Date: **2/19/2020 07:12 PM**

Client ID: Run ID: **VMS10_200219A** SeqNo: **6260655** Prep Date: **2/19/2020** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	371.2	20	400	0	92.8	73-114	341.2	8.42	30	
1,1,1-Trichloroethane	447.8	20	400	0	112	75-130	384.6	15.2	30	
1,1,2,2-Tetrachloroethane	390.4	20	400	0	97.6	75-130	370.8	5.15	30	
1,1,2-Trichloroethane	396.2	20	400	0	99	75-125	363.4	8.64	30	
1,1-Dichloroethane	460.6	20	400	0	115	68-142	405.4	12.7	30	
1,1-Dichloroethene	477.2	20	400	0	119	70-145	413	14.4	30	
1,2,3-Trichloropropane	371	20	400	0	92.8	75-125	365.2	1.58	30	
1,2,4-Trichlorobenzene	355.8	20	400	0	89	70-135	316.6	11.7	30	
1,2,4-Trimethylbenzene	522.8	20	400	115.6	102	75-130	479.6	8.62	30	
1,2-Dibromo-3-chloropropane	328.2	20	400	0	82	60-130	311.8	5.12	30	
1,2-Dibromoethane	423.2	20	400	0	106	67-155	391.6	7.76	30	
1,2-Dichlorobenzene	368	20	400	0	92	70-130	345.6	6.28	30	
1,2-Dichloroethane	417.4	20	400	0	104	78-125	379.8	9.43	30	
1,2-Dichloropropane	437.2	20	400	0	109	75-125	389	11.7	30	
1,3,5-Trimethylbenzene	427	20	400	34.8	98	75-130	390.2	9.01	30	
1,3-Dichlorobenzene	374	20	400	0	93.5	75-130	341.6	9.06	30	
1,4-Dichlorobenzene	370.2	20	400	0	92.6	75-130	334.8	10	30	
2-Butanone	365.8	100	400	0	91.4	55-150	332.2	9.63	30	
2-Hexanone	307.2	100	400	0	76.8	60-135	296	3.71	30	
4-Methyl-2-pentanone	429.6	20	400	0	107	77-178	404.8	5.94	30	
Acetone	395	200	400	23	93	60-160	362.8	8.5	30	
Acrylonitrile	438.2	20	400	0	110	60-140	396.6	9.97	30	
Benzene	433.2	20	400	0	108	70-130	376.6	14	30	
Bromochloromethane	441.6	20	400	0	110	72-141	402.6	9.24	30	
Bromodichloromethane	447.8	20	400	0	112	75-125	402.8	10.6	30	
Bromoform	318.8	20	400	0	79.7	60-125	299	6.41	30	
Bromomethane	1341	20	400	0	335	30-185	946.8	34.5	30	BSR
Carbon disulfide	463	20	400	0	116	60-165	401	14.4	30	
Carbon tetrachloride	342.6	20	400	0	85.6	65-140	293.4	15.5	30	
Chlorobenzene	388.8	20	400	0	97.2	80-120	353.8	9.43	30	
Chloroethane	430.4	20	400	0	108	31-172	358.2	18.3	30	
Chloroform	448	20	400	0	112	66-135	395.6	12.4	30	
Chloromethane	392.6	20	400	0	98.2	46-148	340	14.4	30	B
cis-1,2-Dichloroethene	448.6	20	400	0	112	75-134	396.4	12.4	30	
cis-1,3-Dichloropropene	420.6	20	400	0	105	70-130	373.2	11.9	30	
Dibromochloromethane	322.6	20	400	0	80.6	60-115	310	3.98	30	
Dibromomethane	430.6	20	400	0	108	79-126	391	9.64	30	
Dichlorodifluoromethane	572.4	20	400	0	143	20-120	494	14.7	30	S
Diethyl ether	420.6	20	400	0	105	70-130	382.4	9.51	30	
Ethylbenzene	404.8	20	400	13.6	97.8	76-123	361.6	11.3	30	
Hexachloroethane	358	20	400	0	89.5	50-124	327.4	8.93	30	
Isopropylbenzene	398.6	20	400	0	99.6	80-127	354	11.9	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R282900** Instrument ID **VMS10** Method: **SW8260C**

m,p-Xylene	813.6	40	800	41.4	96.5	75-130	737.2	9.85	30	
Methyl iodide	643.6	100	400	0	161	60-160	476.6	29.8	30	S
Methyl tert-butyl ether	457.6	20	400	0	114	68-129	420.2	8.52	30	
Methylene chloride	408.8	100	400	0	102	72-125	373.6	9	30	
Naphthalene	377.4	100	400	36	85.4	55-160	353	6.68	30	
n-Propylbenzene	393.8	20	400	9.2	96.2	76-116	348.4	12.2	30	
o-Xylene	425	20	400	28	99.2	76-127	379.6	11.3	30	
Styrene	434.2	20	400	0	109	83-137	396.4	9.1	30	
Tetrachloroethene	384.4	20	400	0	96.1	68-166	343.4	11.3	30	
Toluene	384.2	20	400	0	96	76-125	343.2	11.3	30	
trans-1,2-Dichloroethene	461	20	400	0	115	80-140	399.8	14.2	30	
trans-1,3-Dichloropropene	385.6	20	400	0	96.4	56-132	357.6	7.53	30	
trans-1,4-Dichloro-2-butene	303.8	40	400	0	76	46-118	283.8	6.81	30	
Trichloroethene	438.8	20	400	0	110	77-125	379	14.6	30	
Trichlorofluoromethane	388	20	400	0	97	60-140	343	12.3	30	
Vinyl chloride	470.8	20	400	0	118	50-136	407.2	14.5	30	
Xylenes, Total	1239	60	1200	69.4	97.4	76-127	1117	10.3	30	
Surr: 1,2-Dichloroethane-d4	*396.6*	0	*400*	0	*99.2*	*75-120*	387.8	*2.24*	*30*	
Surr: 4-Bromofluorobenzene	*404.6*	0	*400*	0	*101*	*80-110*	411	*1.57*	*30*	
Surr: Dibromofluoromethane	*405.2*	0	*400*	0	*101*	*85-115*	407.6	*0.591*	*30*	
Surr: Toluene-d8	*379*	0	*400*	0	*94.8*	*85-110*	383.2	*1.1*	*30*	

The following samples were analyzed in this batch:

20020850-06A	20020850-07A	20020850-08A
20020850-27A	20020850-28A	20020850-47A
20020850-48A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R283299B** Instrument ID **VMS8** Method: **SW8260C**

MBLK Sample ID: **VBLKW1-200225-R283299B** Units: **µg/L** Analysis Date: **2/25/2020 11:21 AM**

Client ID: Run ID: **VMS8_200225A** SeqNo: **6270815** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	1.0								
1,2-Dichloroethane	ND	1.0								
2-Butanone	ND	5.0								
Benzene	ND	1.0								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroform	ND	1.0								
Tetrachloroethene	ND	1.0								
Trichloroethene	ND	1.0								
Vinyl chloride	ND	1.0								
Surr: 1,2-Dichloroethane-d4	*21.15*	0	*20*	0	*106*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.59*	0	*20*	0	*98*	*80-110*	0			
Surr: Dibromofluoromethane	*19.96*	0	*20*	0	*99.8*	*85-115*	0			
Surr: Toluene-d8	*20.8*	0	*20*	0	*104*	*85-110*	0			

LCS Sample ID: **VLCSW1-200225-R283299B** Units: **µg/L** Analysis Date: **2/25/2020 10:33 AM**

Client ID: Run ID: **VMS8_200225A** SeqNo: **6270814** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	18.73	1.0	20	0	93.6	70-145	0			
1,2-Dichloroethane	18.41	1.0	20	0	92	78-125	0			
2-Butanone	18.9	5.0	20	0	94.5	55-150	0			
Benzene	19.32	1.0	20	0	96.6	70-130	0			
Carbon tetrachloride	15.92	1.0	20	0	79.6	65-140	0			
Chlorobenzene	18.89	1.0	20	0	94.4	80-120	0			
Chloroform	18.55	1.0	20	0	92.8	66-135	0			
Tetrachloroethene	17.18	1.0	20	0	85.9	68-166	0			
Trichloroethene	17.04	1.0	20	0	85.2	77-125	0			
Vinyl chloride	19.24	1.0	20	0	96.2	50-136	0			
Surr: 1,2-Dichloroethane-d4	*21.53*	0	*20*	0	*108*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*20.04*	0	*20*	0	*100*	*80-110*	0			
Surr: Dibromofluoromethane	*19.92*	0	*20*	0	*99.6*	*85-115*	0			
Surr: Toluene-d8	*20.49*	0	*20*	0	*102*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R283299B** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: **20021284-04A MS** Units: **µg/L** Analysis Date: **2/25/2020 05:32 PM**

Client ID: Run ID: **VMS8_200225A** SeqNo: **6270826** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	960.5	50	1000	0	96	70-145	0			
1,2-Dichloroethane	935	50	1000	0	93.5	78-125	0			
2-Butanone	1028	250	1000	0	103	55-150	0			
Benzene	3054	50	1000	1883	117	70-130	0			
Carbon tetrachloride	841	50	1000	0	84.1	65-140	0			
Chlorobenzene	933	50	1000	0	93.3	80-120	0			
Chloroform	940	50	1000	0	94	66-135	0			
Tetrachloroethene	877.5	50	1000	0	87.8	68-166	0			
Trichloroethene	875	50	1000	0	87.5	77-125	0			
Vinyl chloride	989.5	50	1000	0	99	50-136	0			
Surr: 1,2-Dichloroethane-d4	*1084*	0	*1000*	0	*108*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*1001*	0	*1000*	0	*100*	*80-110*	0			
Surr: Dibromofluoromethane	*1037*	0	*1000*	0	*104*	*85-115*	0			
Surr: Toluene-d8	*1028*	0	*1000*	0	*103*	*85-110*	0			

MSD Sample ID: **20021284-04A MSD** Units: **µg/L** Analysis Date: **2/25/2020 05:49 PM**

Client ID: Run ID: **VMS8_200225A** SeqNo: **6270827** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	1034	50	1000	0	103	70-145	960.5	7.32	30	
1,2-Dichloroethane	995.5	50	1000	0	99.6	78-125	935	6.27	30	
2-Butanone	1112	250	1000	0	111	55-150	1028	7.8	30	
Benzene	3104	50	1000	1883	122	70-130	3054	1.59	30	
Carbon tetrachloride	895.5	50	1000	0	89.6	65-140	841	6.28	30	
Chlorobenzene	1005	50	1000	0	100	80-120	933	7.43	30	
Chloroform	1006	50	1000	0	101	66-135	940	6.78	30	
Tetrachloroethene	960	50	1000	0	96	68-166	877.5	8.98	30	
Trichloroethene	936	50	1000	0	93.6	77-125	875	6.74	30	
Vinyl chloride	1078	50	1000	0	108	50-136	989.5	8.56	30	
Surr: 1,2-Dichloroethane-d4	*1051*	0	*1000*	0	*105*	*75-120*	1084	*3.05*	*30*	
Surr: 4-Bromofluorobenzene	*989.5*	0	*1000*	0	*99*	*80-110*	1001	*1.16*	*30*	
Surr: Dibromofluoromethane	*1036*	0	*1000*	0	*104*	*85-115*	1037	*0.0965*	*30*	
Surr: Toluene-d8	*1047*	0	*1000*	0	*105*	*85-110*	1028	*1.88*	*30*	

The following samples were analyzed in this batch:

20020850-49A	20020850-50A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151885** Instrument ID **WETCHEM** Method: **SW9045D**

LCS Sample ID: **LCS-151885-151885** Units: **s.u.** Analysis Date: **2/13/2020 03:10 PM**

Client ID: Run ID: **WETCHEM_200213I** SeqNo: **6247062** Prep Date: **2/13/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	3.97	0.10	4	0	99.2	90-110	0			

DUP Sample ID: **20020822-01A DUP** Units: **s.u.** Analysis Date: **2/13/2020 03:10 PM**

Client ID: Run ID: **WETCHEM_200213I** SeqNo: **6247064** Prep Date: **2/13/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.76	0.10	0	0	0	0-0	7.69	0.906	20	

DUP Sample ID: **20020850-10B DUP** Units: **s.u.** Analysis Date: **2/13/2020 03:10 PM**

Client ID: **S-10 0-5'** Run ID: **WETCHEM_200213I** SeqNo: **6247067** Prep Date: **2/13/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.92	0.10	0	0	0	0-0	8.83	1.01	20	

The following samples were analyzed in this batch:

20020850-09B	20020850-10B	20020850-11B
20020850-12B	20020850-13B	20020850-14B
20020850-15B	20020850-16B	20020850-17B
20020850-18B	20020850-19B	20020850-20B
20020850-21B	20020850-22B	20020850-23B
20020850-24B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151899** Instrument ID **LACHAT** Method: **E365.1 R2.0**

MBLK Sample ID: **MBLK-151899-151899** Units: **mg/Kg** Analysis Date: **2/13/2020 03:31 PM**
Client ID: Run ID: **LACHAT_200213B** SeqNo: **6247340** Prep Date: **2/13/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	ND	5.0								

LCS Sample ID: **LCS-151899-151899** Units: **mg/Kg** Analysis Date: **2/13/2020 03:32 PM**
Client ID: Run ID: **LACHAT_200213B** SeqNo: **6247341** Prep Date: **2/13/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	10.13	5.0	10	0	101	90-110	0			

MS Sample ID: **20020850-19B MS** Units: **mg/Kg** Analysis Date: **2/13/2020 04:40 PM**
Client ID: **S-5 14-15'** Run ID: **LACHAT_200213B** SeqNo: **6248378** Prep Date: **2/13/2020** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	266.1	190	38.46	202.5	165	90-110	0			SO

MS Sample ID: **20020591-01A MS** Units: **mg/Kg** Analysis Date: **2/13/2020 05:05 PM**
Client ID: Run ID: **LACHAT_200213B** SeqNo: **6248401** Prep Date: **2/13/2020** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	1133	430	43.48	1203	-160	90-110	0			SO

MSD Sample ID: **20020850-19B MSD** Units: **mg/Kg** Analysis Date: **2/13/2020 04:41 PM**
Client ID: **S-5 14-15'** Run ID: **LACHAT_200213B** SeqNo: **6248379** Prep Date: **2/13/2020** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	245.5	200	39.06	202.5	110	90-110	266.1	8.04	20	SO

MSD Sample ID: **20020591-01A MSD** Units: **mg/Kg** Analysis Date: **2/13/2020 05:06 PM**
Client ID: Run ID: **LACHAT_200213B** SeqNo: **6248402** Prep Date: **2/13/2020** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total	1256	430	42.74	1203	126	90-110	1133	10.3	20	SO

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151899** Instrument ID **LACHAT** Method: **E365.1 R2.0**

The following samples were analyzed in this batch:

20020850-09B	20020850-10B	20020850-11B
20020850-12B	20020850-13B	20020850-14B
20020850-15B	20020850-16B	20020850-17B
20020850-18B	20020850-19B	20020850-20B
20020850-21B	20020850-22B	20020850-23B
20020850-24B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **151908** Instrument ID **WETCHEM** Method: **A5210B-11**

MBLK Sample ID: **MBLK-151908-151908** Units: **mg/Kg** Analysis Date: **2/18/2020 10:45 AM**
Client ID: Run ID: **WETCHEM_200218M** SeqNo: **6255429** Prep Date: **2/13/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Biochemical Oxygen Demand	0.8	20	0	0	0	0-0	0			

LCS Sample ID: **LCS-151908-151908** Units: **mg/Kg** Analysis Date: **2/18/2020 10:45 AM**
Client ID: Run ID: **WETCHEM_200218M** SeqNo: **6255430** Prep Date: **2/13/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Biochemical Oxygen Demand	1819	20	1980	0	91.9	85-115	0			

DUP Sample ID: **20020850-10B DUP** Units: **mg/Kg** Analysis Date: **2/18/2020 10:45 AM**
Client ID: **S-10 0-5'** Run ID: **WETCHEM_200218M** SeqNo: **6255433** Prep Date: **2/13/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Biochemical Oxygen Demand	0.006875	0.0049	0	0	0		0.007347	6.64	20	

DUP Sample ID: **20020850-21B DUP** Units: **mg/Kg** Analysis Date: **2/18/2020 10:45 AM**
Client ID: **S-13 0-5'** Run ID: **WETCHEM_200218M** SeqNo: **6255445** Prep Date: **2/13/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Biochemical Oxygen Demand	0.01419	0.0049	0	0	0		0.01405	0.966	20	

The following samples were analyzed in this batch:

20020850-09B	20020850-10B	20020850-11B
20020850-12B	20020850-13B	20020850-14B
20020850-15B	20020850-16B	20020850-17B
20020850-18B	20020850-19B	20020850-20B
20020850-21B	20020850-22B	20020850-23B
20020850-24B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R282713** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R282713** Units: **% of sample** Analysis Date: **2/14/2020 10:18 AM**

Client ID: Run ID: **MOIST_200214A** SeqNo: **6252371** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.10								

LCS Sample ID: **LCS-R282713** Units: **% of sample** Analysis Date: **2/14/2020 10:18 AM**

Client ID: Run ID: **MOIST_200214A** SeqNo: **6252370** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.10	100	0	100	98-102	0			

DUP Sample ID: **20020850-15B DUP** Units: **% of sample** Analysis Date: **2/14/2020 10:18 AM**

Client ID: **A-3** Run ID: **MOIST_200214A** SeqNo: **6252363** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	19.85	0.10	0	0	0	0-0	19.93	0.402	10	

DUP Sample ID: **20020850-20B DUP** Units: **% of sample** Analysis Date: **2/14/2020 10:18 AM**

Client ID: **S-5 17-22'** Run ID: **MOIST_200214A** SeqNo: **6252369** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	18.22	0.10	0	0	0	0-0	17.5	4.03	10	

The following samples were analyzed in this batch:

20020850-01B	20020850-03B	20020850-04B
20020850-05B	20020850-09B	20020850-10B
20020850-11B	20020850-12B	20020850-13B
20020850-15B	20020850-16B	20020850-17B
20020850-18B	20020850-19B	20020850-20B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R282715** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R282715** Units: **% of sample** Analysis Date: **2/14/2020 04:09 PM**

Client ID: Run ID: **MOIST_200214C** SeqNo: **6252414** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.10								

LCS Sample ID: **LCS-R282715** Units: **% of sample** Analysis Date: **2/14/2020 04:09 PM**

Client ID: Run ID: **MOIST_200214C** SeqNo: **6252413** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.10	100	0	100	98-102	0			

DUP Sample ID: **20020132-08A DUP** Units: **% of sample** Analysis Date: **2/14/2020 04:09 PM**

Client ID: Run ID: **MOIST_200214C** SeqNo: **6252397** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	17.62	0.10	0	0	0	0-0	17.45	0.969	10	

DUP Sample ID: **20020981-01A DUP** Units: **% of sample** Analysis Date: **2/14/2020 04:09 PM**

Client ID: Run ID: **MOIST_200214C** SeqNo: **6252412** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	9.68	0.10	0	0	0	0-0	8.58	12	10	R

The following samples were analyzed in this batch:

20020850-21B	20020850-22B	20020850-23B
20020850-24B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: PM Environmental
Work Order: 20020850
Project: Sediment Project 01-5303-3-0001

QC BATCH REPORT

Batch ID: **R282826** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R282826** Units: **% of sample** Analysis Date: **2/17/2020 02:45 PM**

Client ID: Run ID: **MOIST_200217C** SeqNo: **6255102** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.10								

LCS Sample ID: **LCS-R282826** Units: **% of sample** Analysis Date: **2/17/2020 02:45 PM**

Client ID: Run ID: **MOIST_200217C** SeqNo: **6255101** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.10	100	0	100	98-102	0			

DUP Sample ID: **20020997-01A DUP** Units: **% of sample** Analysis Date: **2/17/2020 02:45 PM**

Client ID: Run ID: **MOIST_200217C** SeqNo: **6255091** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	8.69	0.10	0	0	0	0-0	8.76	0.802	10	

DUP Sample ID: **20020997-02A DUP** Units: **% of sample** Analysis Date: **2/17/2020 02:45 PM**

Client ID: Run ID: **MOIST_200217C** SeqNo: **6255093** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	9.12	0.10	0	0	0	0-0	9.18	0.656	10	

The following samples were analyzed in this batch:

20020850-02B	20020850-14B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Chain of Custody Form

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☑ ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

ALS Project Manager: M | ALS Work Order #: 20020850

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name		A	VOCs
Work Order		Project Number		B	PNAs
Company Name	PM Environmental	Bill To Company		C	PCBs
Send Report To	Adam Patton	Invoice Attn.		D	Mi-10 metals
Address	4000 W. 11 Mile	Address		E	Nickel, uranium, thorium
				F	pH, total phosphorus, BOD
City/State/Zip	Berkley/MI/48072	City/State/Zip		G	TCLP, extract and Hold
Phone	517-325-9867	Phone		H	
Fax	—	Fax		I	
e-Mail Address	Pattonc@pmenv.com			J	

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	SB-12 4-5'	2/10/20	13:15	S	4	4	X	X	X	X	X						
2	SB-12 9-10'	2/10/20	13:30	S	4	4	X	X	X	X	X						
3	SB-13 3.5-4.5	2/10/20	14:45	S	4	4	X	X	X	X	X						
4	SB-13 4.5-5.5	2/10/20	15:05	S	4	4	X	X	X	X	X						
5	SB-14 1.5-2.5	2/10/20	17:20	S	4	4	X	X	X	X	X						
6	A1	2/10/20	14:00	W	1	2	X										
7	A2	2/10/20	14:30	W	1	5	X	X	X	X	X						
8	P1	2/10/20	17:40	W	1	5	X	X	X	X	X						
9	S-9 0-5'	2/11/20	16:00	S	4	5	X	X	X	X	X	X	X	29			
10	S-10 0-5'	2/11/20	14:45	S	4	5	X	X	X	X	X	X	X	30			

Sampler(s): Please Print & Sign: Jana Beumel Jana Beumel

Shipment Method:

Turnaround Time: (Business Days) ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☐ Other _____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
Jana Beumel	2/12/20	7:45	QS			
QS	2/13/20	0800	[illegible]			
Logged by (Laboratory): KR	2/13/20	0825	Checked by (Laboratory): M			

ALS Cooler ID	Cooler Temp
SR1	3.2°C
	3.6°C
	2.4°C

QC Package: (Check Box Below)
☐ Level II: Standard QC ☐ Level III: Raw Data
☐ TRRP LRC ☐ TRRP Level IV
☐ Level IV: SW846 Methods/CLP like
☐ Other: _____

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.

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Chain of Custody Form

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☑ ALS Environmental
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ALS Project Manager: RL **ALS Work Order #:** 20020850

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name		A	VOCs
Work Order		Project Number		B	PNAs
Company Name	PM Environmental	Bill To Company		C	PCBs
Send Report To	Adam Patton	Invoice Attn.		D	MI-10 Metals
Address	4000 W. 11 Mile	Address		E	Nickel, uranium, thorium
				F	pH, total phosphorous, BOD
City/State/Zip	Berkley/MI/48072	City/State/Zip		G	TCLP, extract and Hold
Phone	517-325-9869	Phone		H	
Fax	—	Fax		I	
e-Mail Address	Patton@pmenv.com			J	

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
11	S-1 0-5'	2/12/20	11:40	S	4	4	X	X	X	X	X	X	X	31			
12	S-1 5-10'	2/12/20	11:45	S	4	4	X	X	X	X	X	X	X	32			
13	S-8 0-3'	2/12/20	13:00	S	4	4	X	X	X	X	X	X	X	33			
14	S-8 3-8'	2/12/20	13:05	S	4	4	X	X	X	X	X	X	X	34			
15	A-3	2/12/20	PM	S	4	4	X	X	X	X	X	X	X	35			
16	S-2 0-7'	2/12/20	14:00	S	4	4	X	X	X	X	X	X	X	36			
17	S-2 7-12'	2/12/20	14:05	S	4	4	X	X	X	X	X	X	X	37			
18	S-5 0-5'	2/12/20	15:00	S	4	4	X	X	X	X	X	X	X	38			
19	S-5 12-17	2/12/20	15:25	S	4	4	X	X	X	X	X	X	X	39			
20	S-5 17-22	2/12/20	15:30	S	4	4	X	X	X	X	X	X	X	40			

Sampler(s): Please Print & Sign Jana Beumel Jana Beumel

Shipment Method:

Turnaround Time: (Business Days) ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☐ Other _____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
Jana Beumel	2/12/20	7:45	QS			
QS	2/13/20	0800	[illegible]			
Logged by (Laboratory): Ka	2/13/20	0825	Checked by (Laboratory): RL			

ALS Cooler ID	Cooler Temp	QC Package: (Check Box Below)	
		☐ Level II: Standard QC	☐ Level III: Raw Data
		☐ TRRP LRC	☐ TRRP Level IV
		☐ Level IV: SW846 Methods/CLP like	
		☐ Other: _____	

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.

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Chain of Custody Form

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☑ ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

ALS Project Manager: R | ALS Work Order #: 20020850

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name		A	VOCs
Work Order		Project Number		B	PNAs
Company Name	PM Environmental	Bill To Company		C	PCBs
Send Report To	Adam Patton	Invoice Attn.		D	4-10 metals
Address	4000 W. 11 Mile	Address		E	Nickel, Uranium, Thorium
				F	pH, total phosphorus BOD
City/State/Zip	Berkley/MI/48072	City/State/Zip		G	TCLP, extract and Hold
Phone	517-325-9867	Phone		H	
Fax	—	Fax		I	
e-Mail Address	Patton@pmenv.com			J	

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
21	S-13 0-5'	2/11/20	10:45	S	4	5	X	X	X	X	X	X	X	41			
22	S-12 0-5'	↓	12:10	S	4	5	X	X	X	X	X	X	X	42			
23	S-11 0-5'		13:50	S	4	5	X	X	X	X	X	X	X	43			
24	S-11 ~~0-5~~ 5-10		14:00	S	4	5	X	X	X	X	X	X	X	44			
25	~~S-10 0-5~~		~~14:45~~	~~S~~	~~4~~	~~5~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~45~~	R 2/13/20		
26	~~S-9~~	↓	~~14:50~~	~~S~~	~~4~~	~~5~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~46~~	R 2/13/20		
27	A-4	2/11/20	PM	W	1,2	~~W2~~	X										
28	A-5	2/12/20	12:30	W	1,2	5	X	X	X	X	X	~~X~~	~~X~~	R 2/13/20			
47	TRIP BLANK #1						X										
48	↓ #2						X										

Sampler(s): Please Print & Sign: Jana Beumel Jana Beumel

Shipment Method:

Turnaround Time: (Business Days) ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☐ Other _____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
Jana Beumel	2/12/20	7:45	OS			
Relinquished by: OS	Date: 2/13/20	Time: 0800	Received by (Laboratory):	Date:	Time:	
Logged by (Laboratory): KL	Date: 2/13/20	Time: 0825	Checked by (Laboratory): R			

ALS Cooler ID	Cooler Temp	QC Package: (Check Box Below)	
		☐ Level II: Standard QC	☐ Level III: Raw Data
		☐ TRRP LRC	☐ TRRP Level IV
		☐ Level IV: SW846 Methods/CLP like	
		☐ Other: _____	

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.

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Sample Receipt Checklist

Client Name: **PMENV-BERKLEY** Date/Time Received: **13-Feb-20 08:00**

Work Order: **20020850** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 13-Feb-20 (Date) Reviewed by: Alex J. Csaszar (eSignature) 13-Feb-20 (Date)

Matrices: Water & Soil

Carrier name: Courier

	Yes	No	Not Present
Shipping container/cooler in good condition?	☑	☐	☐
Custody seals intact on shipping container/cooler?	☐	☐	☑
Custody seals intact on sample bottles?	☐	☐	☑
Chain of custody present?	☑	☐	
Chain of custody signed when relinquished and received?	☑	☐	
Chain of custody agrees with sample labels?	☑	☐	
Samples in proper container/bottle?	☑	☐	
Sample containers intact?	☑	☐	
Sufficient sample volume for indicated test?	☑	☐	
All samples received within holding time?	☑	☐	
Container/Temp Blank temperature in compliance?	☑	☐	
Sample(s) received on ice?	☑	☐	

Temperature(s)/Thermometer(s): 3.2/3.2, 3.6/3.6, 2.4/2.4 C SR2

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage: 2/13/2020 8:57:58 AM

	Yes	No		
Water - VOA vials have zero headspace?	☑	☐	No VOA vials submitted	☐
Water - pH acceptable upon receipt?	☑	☐	N/A	☐
pH adjusted?	☐	☑	N/A	☐

pH adjusted by: -

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction: